

Economics 351x: Microeconomics for Business

Fall 2019

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Textbook:

The recommended textbook for our class is Microeconomics for Business (Fourth Custom Edition for USC). The text contains 15 chapters from the book Microeconomics by Pindyck and Rubinfeld, 9th edition, and 3 chapters from the book Microeconomics by Hubbard and O'Brien, 6th edition. Earlier editions of this custom book would be fine for use in the course. Also, earlier editions of the Pindyck and Rubinfeld book would also be fine for use in the course.

I provide book chapter type lecture notes in the form of online pdf files. The text is expensive, so that those who would like to save money might consider buying an older edition of Pindyck and Rubinfeld online. The three chapters from Hubbard can be skipped, as they cover background material which is discussed in my lecture notes.

The lecture notes for the course will be available on my web page in pdf form (password protected). Below you will find links to each of the lecture notes in the list of topics. You can download the entire manuscript complete with a mathematical appendix here [Microeconomics for Business Decisions Marino 2019.pdf](#)

Grading Scheme, Contact Information, and Web Page Address:

1. Your grade will be based on the following scheme:

- Three section exams each worth 25 course points.
- A final exam worth 35 course points.
- Total possible course points = 110.
- Each student will be given the following option: If your percentage performance on the final exam is greater than the lowest percentage performance of your three section exams, then the final exam will be weighted with 60 course points and the lowest section exam score will be dropped. Let me provide an example of this grading scheme. Suppose that your 3 section exams and the final exam are as follows:

SE1 = 25, SE2 = 22, SE3 = 20, FE = 33.

For this case, the sum of your 4 scores is 100. If we drop the lowest of the three section exams and weigh the final at 60 (= 35 + 25) points, your score is

$$25 + 22 + (33/35) 60 = 25 + 22 + 56.6 = 103.6.$$

Because $103.6 > 100$, your point total for the course is 103.6.

2. Office Hours: Tuesday and Thursday 2-3:30 pm.

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web page: <http://faculty.marshall.usc.edu/Anthony-Marino/> or

<http://faculty.marshall.usc.edu/Anthony-Marino/main.html> (the second version has no frames)

Examination Policy

University policy requires the final exam to be given at the time indicated by the University's final exam schedule. Instructors do not have discretion to grant exceptions to this policy. No student is allowed to take the final exam earlier or to skip the final exam. **Please check the official final exam schedule for the date and time of your section's final exam.**

There will be no make-up tests. By enrolling in the course you are committing to take the section exams on the scheduled dates. If a test is missed, it receives an automatic zero, and its course weight is added to the final exam.

Each section exam will cover only the material since the last section exam. The final exam is cumulative, but I will list the set of topics covered in advance of the final date.

Topics and Readings

Lecture 1. Introduction: Principles of Business Economics [LN 1](#).

1.1 Economic models

1.2 The Market System

1.3 Supply and Demand Analysis: The Firm and Markets

Lecture 2. A Mathematics Review: Marginal Functions, Average Functions, Elasticity, and Notes on Optimization [LN 2](#).

2.1 Introduction

2.2 The Basic Problem

2.3 The Marginal or Derivative Function and Optimization

2.4 The Average Function

2.5 Elasticity

Lecture 3. Consumer Behavior Theory: The Foundation for Demand, the Firm's Revenue and Marketing [LN 3](#).

3.1 Choice and Utility

3.2 The Budget Constraint

3.3 The Consumer's Equilibrium and Derivation of Individual Demand with Applications to (i) Subsidizing Employee Housing, (ii) Nonlinear pricing and Business Revenue Enhancement, and (iii) The Effects of Business Taxes on Consumers

3.4 Market Demand for Goods and Services

3.5 Price and Income Elasticities of Demand and Implications for the Firm's Revenue

3.6 The Law of Demand

3.7 Intertemporal Consumption Choice: Saving, Borrowing and Financing

Lecture 4. Two topics in Consumer Theory as Applied to Business [LN 4](#)

4.1 Consumer Surplus: A Proxy for Consumer Utility

4.2 Forecasting Demand for a Firm's Product

4.3 Using Regression Estimates to Make Predictions for the Firm

Lecture 5. Choice under Uncertainty [LN 5](#).

5.1 Introduction

5.2 A Model of Choice with Uncertainty: The Notion of Risk Aversion in Finance

5.3 Reducing Risk in Business

Lecture 6. Production and the Link to the Firm's Cost Function: An Operations Management Problem [LN 6](#).

6.1 Introduction

6.2 The Production Function

6.3 Average Product, Marginal Product and Input Elasticity

6.4 Isoquants and the MRTS

6.5 The Link between Production and Cost

Appendix on Labor Productivity

Lecture 7. Short-run and Long-run Costs for the Firm [LN 7](#).

7.1 Introduction

7.2 Short-run Cost

7.3 Average and Marginal Costs

7.4 Long-run Costs

7.5 Real World Examples from the Business World

Lecture 8. Perfect Competition and the Firm's Decision Making [LN 8](#).

8.1 Introduction

8.2 Short-run Profit Maximization

8.3 Long-run Profit Maximization

8.4 Competitive Input Demand

8.5 Social Welfare with Perfect Competition and the Effects of Government Controls on a Competitive Market

Lecture 9. Pure Monopoly and the Firm's Decision Making [LN 9](#)

9.1 Introduction

9.2 The Monopolist's Profit Maximizing Equilibrium

9.3 The Deadweight Loss of Monopoly and Price Regulation

9.4 Monopsony, Labor Unions and Government Regulation in Monopsony

Lecture 10. A Business Firm's Pricing Strategy with Monopoly Power [LN 10](#).

10.1 Introduction

10.2 General Price Discrimination: Perfect Price Discrimination, Second Degree Price Discrimination, Third Degree Price Discrimination, Intertemporal Price Discrimination, Two Part Tariffs, Bundling and Tying

Lecture 11. Monopolistic Competition, Oligopoly and the Firm's Decision Making
[LN 11.](#)

11.1 Introduction

11.2 Monopolistic Competition

11.3 Oligopoly

Lecture 12. Business Applications of Game Theory [LN 12.](#)

12.1 Introduction

12.2 Dominant Strategy Equilibrium

12.3 Nash Equilibrium

12.4 Strategic Moves

12.5 Auctions

Lecture 13. Asymmetric Information in Markets for Commodities and Within Firms [LN 13.](#)

13.1 Introduction

13.2 Asymmetric Information in Markets

13.3 The Principal-Agent Problem within Organizations: An Introduction to Human Resource Decisions

13.4 Remarks on Information Economics

Lecture 14. Externalities, Public Goods and Government's Interface with Business
[LN 14.](#)

14.1 Introduction

14.2 Externalities

14.3 Pollution Abatement

14.4 Externalities and Property Rights

14.5 Private versus Public Provision of Public Goods

Tentative Schedule

| Session | Date | Topic | Book Chapters | Marino Lecture Notes |
|---------|-------|--|----------------|----------------------|
| 1 T | 8/27 | Methodology, The Market System, Supply and Demand | Ch1,4 | LN1 |
| 2 Th | 8/29 | Supply and Demand and Math Review | Ch1,4 | LN1, LN2 |
| 3 T | 9/3 | Math Review, Demand | Ch5 | LN2, LN3 |
| 4 Th | 9/5 | Demand | Ch5, Ch6 | LN3 |
| 5 T | 9/10 | Demand | Ch6 | LN3 |
| 6 Th | 9/12 | Consumer Theory Topics | Ch6 | LN4 |
| 7 T | 9/17 | Consumer Theory Topics, Uncertainty | Ch6, Ch7 | LN4, LN5 |
| 8 Th | 9/19 | Section Exam 1***** | | |
| 9 T | 9/24 | Uncertainty, Production | Ch7, Ch8 | LN5, LN6 |
| 10 Th | 9/26 | Production, Cost | Ch8, Ch9 | LN6, LN7 |
| 11 T | 10/1 | Cost | Ch9 | LN7 |
| 12 Th | 10/3 | Perfect Competition | Ch10 | LN8 |
| 13 T | 10/8 | Perfect Competition | Ch10,Ch11,Ch16 | LN8 |
| 14 Th | 10/10 | Perfect Competition | Ch11 | LN8 |
| 15 T | 10/15 | Section Exam 2***** | | |
| 16 Th | 10/17 | Monopoly | Ch12 | LN9 |
| 17 T | 10/22 | Monopoly | Ch12 | LN9 |
| 18 Th | 10/24 | Monopsony and Pricing | Ch12,Ch13,Ch16 | LN9, LN10 |
| 19 T | 10/29 | Pricing | Ch13 | LN10 |
| 20 Th | 10/31 | Oligopoly | Ch14 | LN11 |
| 21 T | 11/5 | Oligopoly | Ch14 | LN11 |
| 22 Th | 11/7 | Oligopoly | Ch14 | LN11 |
| 23 T | 11/12 | Games and Competitive Strategy | Ch15 | LN12 |
| 24 Th | 11/14 | Section Exam 3***** | | |
| 25 T | 11/19 | Games and Competitive Strategy, Auctions | Ch15 | LN12 |
| 26 Th | 11/21 | Auctions, Asymmetric Information | Ch15, Ch17 | LN12, LN13 |
| 27 T | 11/26 | Asymmetric Information, Externalities and Public Goods | Ch17, Ch 18 | LN13, LN14 |
| 28 T | 12/3 | Externalities and Public Goods | Ch18 | LN14 |
| 29 Th | 12/5 | Review ***** | ***** | ***** |

Course Description

The main goal of this course is to show how microeconomic models can be used to guide business decisions. This is a course designed for business majors, with key departures

from standard introductory microeconomics courses. We will study the behavior of consumers and firms, and their implications for demand, supply and market equilibrium. We will analyze competitive markets, market failures, and the role of government. To reflect rising concentration in markets we will spend some time on the implications of market power on firm pricing decisions and profits. The course also introduces basic principles of game theory and competitive strategy.

This course is designed to prepare students for future business courses, including finance, marketing, and strategy. The models, methods, and case studies have been selected with a focus on business relevant applications. For example, the economics of consumer choice underlies much of modern marketing strategy, including pricing, segmentation and advertising. The theory of the firm contributes to a sound understanding of cost accounting as well as production decisions. Economic analysis of intertemporal decisions and behavior in a risky environment form the foundation of finance. Finally, the study of market failure and industrial structure is necessary for an understanding of government's role in a market economy and the political environment for business.

More generally, this course provides a rigorous foundation for the study of decision making problems within firms. The student who successfully completes this course should be able to apply microeconomic analysis to issues of real world interest within the firm.

Prerequisites

Although our focus will be on the intuition behind the microeconomic models and their real world consequences, the use of mathematics (in particular, algebra and calculus) will be necessary to analyze and understand such models. For example, you may be asked to draw and interpret graphs representing demand and supply, to solve a system of equations describing a competitive market, or to compute the derivative of a profit function. MATH 118 is a prerequisite for ECON 351x. Therefore, I expect students to have a good understanding of the material covered in that class.

Learning Objectives

Upon completion of this course you will be able to:

1. Apply graphical and algebraic analytical techniques to the analysis of resource allocation through an understanding of economic theories and models.
2. Apply the basic demand-supply market model to goods markets and factor markets by identifying and analyzing the values of equilibrium prices and quantities as determined by market forces.
3. Differentiate and apply different aspects of neoclassical economic theory by examining the dynamics of consumer, firm, and market forces and calculating their impacts.

4. Apply the model of behavior in risky circumstances by calculating expected utility, expected income, and certainty equivalents.
5. Explain the role of game theory in economic models by representing various game-theoretic interactions.
6. Explore market power by examining the impact of monopoly, monopsony, and oligopoly on resource allocation.
7. Analyze the impact of various forms of government interference in markets by calculating the changes in consumer and producer surplus, and deadweight loss.
8. Analyze the impact of asymmetric information on market efficiency by explaining examples of adverse selection, moral hazard, and the principal-agent problem.

Alignment with Marshall School of Business Program Learning Goals

Learning Goals: In this class, emphasis will be placed on the USC Marshall School of Business learning goals as follows:

| Goal | Description | Course Emphasis |
|-------------|---|------------------------|
| 1 | Our graduates will understand types of markets and key business areas and their interaction <i>to effectively manage different types of enterprises</i> | High |
| 2 | Our graduates will develop a global business perspective. They will understand how local, regional, and international markets, and economic, social and cultural issues impact business decisions <i>so as to anticipate new opportunities in any marketplace</i> | Moderate |
| 3 | Our graduates will demonstrate critical thinking skills <i>so as to become future-oriented decision makers, problem solvers and innovators</i> | High |
| 4 | Our graduates will develop people and leadership skills to promote their effectiveness as <i>business managers and leaders</i> . | Low |
| 5 | Our graduates will demonstrate ethical reasoning skills, understand social, civic, and professional responsibilities and aspire to add value to society | Low |
| 6 | Our graduates will be effective communicators <i>to facilitate information flow in organizational, social, and intercultural contexts</i> . | Low |

ADDITIONAL INFORMATION

Statement on Academic Conduct and Support Systems

Academic Conduct:

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Part B, Section 11, “Behavior Violating University Standards” <https://policy.usc.edu/scampus-part-b/>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct>.

Support Systems:

Students whose primary language is not English should check with the American Language Institute <http://dornsife.usc.edu/ali>, which sponsors courses and workshops specifically for international graduate students.

Student Counseling Services (SCS) - (213) 740-7711 – 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention. <https://engemannshc.usc.edu/counseling/>

National Suicide Prevention Lifeline - 1-800-273-8255

Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. <http://www.suicidepreventionlifeline.org>

Relationship & Sexual Violence Prevention Services (RSVP) - (213) 740-4900 - 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender-based harm. <https://engemannshc.usc.edu/rsvp/>

Sexual Assault Resource Center

For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: <http://sarc.usc.edu/>

Office of Equity and Diversity (OED)/Title IX compliance – (213) 740-5086

Works with faculty, staff, visitors, applicants, and students around issues of protected class. <https://equity.usc.edu/>

Bias Assessment Response and Support

Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. <https://studentaffairs.usc.edu/bias-assessment-response-support/>

Student Support & Advocacy – (213) 821-4710

Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic.

<https://studentaffairs.usc.edu/ssa/>

Diversity at USC

Tab for Events, Programs and Training, Task Force (including representatives for each school), Chronology, Participate, Resources for Students. <https://diversity.usc.edu/>

USC Emergency Information

Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible. emergency.usc.edu

USC Department of Public Safety – UPC: (213) 740-4321 – HSC: (323) 442-1000 – 24-hour emergency or to report a crime. Provides overall safety to USC community. dps.usc.edu

Students with Disabilities:

USC is committed to making reasonable accommodations to assist individuals with disabilities in reaching their academic potential. If you have a disability which may impact your performance, attendance, or grades in this course and require accommodations, you must first register with the Office of Disability Services and Programs (www.usc.edu/disability). DSP provides certification for students with disabilities and helps arrange the relevant accommodations. Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me as early in the semester as possible. DSP is located in GFS (Grace Ford Salvatori Hall) 120 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776. Email: ability@usc.edu.

Marshall Tutoring Program

The Marshall Office of Undergraduate Advising offers Peer Tutoring as a supplement to classroom instruction. Marshall Peer Tutors are able to assist students in understanding and clarifying difficult concepts, but tutoring sessions are effective only if students regularly attend class and actively engage in the process of thinking critically about the course content.

Marshall Peer Tutoring services are available for core courses that are traditionally challenging, including ECON 351x. Students can choose to participate in group tutoring sessions or drop-in tutoring sessions. Most students will benefit from group tutoring in particular, as the purpose of group tutoring sessions is to review and discuss content covered in the previous and current week.

For more information please go to <http://students.marshall.usc.edu/undergrad/marshall-peer-tutoring-program/> .

Other Policies

Please turn off your cellular phones before entering the classroom. They may not be used during classes. Since your phone should be turned off, texting during class is not only disrespectful, but it is also a serious violation of class policy.

Students are strongly encouraged to ask questions during class and during office hours. Most times it is not feasible to give a comprehensive answer to questions sent to me by e-mail. If you send me a question by e-mail and I believe that it is not feasible to give a satisfactory answer to that question by e-mail, I will ask you to come to my office hours.