



INTERAMERICAN UNIVERSITY OF PUERTO RICO
METROPOLITAN CAMPUS

FACULTY OF ECONOMICS AND ADMINISTRATIVE SCIENCES

SYLLABUS

I. GENERAL INFORMATION

TITLE	:	MICROECONOMIC THEORY
CODE	:	BADM 7220
CREDITS	:	3 (THREE)
ACADEMIC TERM	:	
PROFESSOR	:	
OFFICE HOUR	:	
PHONE NUMBER	:	
MAIL ADDRESS	:	

II. COURSE DESCRIPTION

Theoretical and empirical analysis of consumer behavior, the firm and industry within the framework of a free commerce economy. Study of the production theory, production costs, and different market structures. Includes development of empirical tests derived from the theories discussed.

III. OBJECTIVES

At the end of the course students will be able to:

1. Discuss advanced topics on modern microeconomics theory.
2. Compare the theory of the interaction of firms and markets.
3. Discuss the economic concepts and their empirical applications.
4. Explain various theoretical assumptions in translating the theory of individual behavior into aggregate analysis.
5. Apply microeconomics empirical models to decision making.
6. Apply and manipulate, rather than merely assimilate, economic concepts and their empirical applications.

The course should deepen student understanding of the foundations of the theory and the use of calculus and other mathematical tools to analyze microeconomic decision-making. However, this is not a course that stresses the mathematical approach.

IV. CONTENT

A. INTRODUCTION: DEMAND, SUPPLY, MARKET EQUILIBRIUM AND ELASTICITY OF DEMAND

- a. demand, supply and Market equilibrium
- b. Elasticity of Demand
- c. The theory of Consumer Behavior
 - 1) Utility Maximization and Choice
 - 2) The Lagrangian Multiplier
 - 3) Income and Substitution Effects
 - 4) Hicksian Analysis and Slutsky Equation
- d. Consumer's Surplus

B. PRODUCER BEHAVIOR AND COSTS OF PRODUCTION

- a. Marginal Productivity
 - 1) The Production Function
 - 2) Cobb-Douglas Production Function
 - 3) The Law of Diminishing Marginal Productivity
- b. Isoquant and Iso-cost Analysis
 - 1) Profit Maximization
 - 2) The Lagrangian Multiplier Once More
 - 3) The Marginal Rate of Substitution
 - 4) Long-Run Expansion Path
 - 5) Returns to Scale
 - 6) Empirical Applications Of Cobb-Douglas Production function: Solow's Growth Model

C. COSTS OF PRODUCTION

- a. Definition of Total and Average Costs
- b. Economic Costs: The Concept of Opportunity Costs
 - 1). Explicit Versus Implicit Costs
- c. Economic Profits and Cost minimization
- d. Cost-Minimizing Input Choices
- e. Mathematical and Graphical Analysis of Costs

f. Integration of Cost and production Analysis

1) Profit Function and Maximization

g. Costs in the Long run

1) Envelope Curves

2) Economic of Scale

D. MARKET STRUCTURES

a. Firms in Perfectly competitive Markets

1. Profit Maximization Rules
2. Derivation of Supply Curves
3. Conditions to Keep Operating, Operating with Losses or Closing the firm.
4. Long-Run Competitive Equilibrium

b. Firms with Market Powers

1. Monopoly

- 1.1 Conditions for Profit Maximization
- 1.2 Measures of Market Power
- 1.3 Elasticity of Demand
- 1.4 Lerner's Index

2. Oligopoly: Decision Making with Mutual Interdependence

- 2.1 Common and Differing Characteristics of Oligopoly
- 2.2 The Problem with Oligopoly Demand
- 2.3 Game Theory: Strategic Interactions in Oligopoly markets: The Prisoner's Dilemma, The Advertising's Dilemma, and Nash 's Equilibrium

E. GENERAL EQUILIBRIUM AND WELFARE

1. Edgeworth's Diagram
2. General Equilibrium Modeling and factors Prices
3. Walras Law

V. ACTIVITIES

We expect this to be a small class and the success of the course depends on everyone involved. We expect students to come to class prepared to discuss the reading material and to contribute to class discussions. One of the objectives of the course is to promote the students' ability to apply and manipulate economic theory. Another objective of the course is to improve the students' ability to communicate their ideas and analysis. Consequently, each student will be required to write a term paper on a micro theory topic related to the course. Students will be expected to attempt some original contribution in the paper. This may mean an extension of some existing model, or it may mean the application of a model in one field to a problem in a different field. Students will also be required to present their completed paper to the rest of the class.

VI. EVALUATION

Mid-term exam ----- (100 points, 25%)
Term paper----- (200 points, 50%)
Final Exam----- (100 points, 25%)
Total Evaluation ----- (400 points, 100%)

A mid-term test will be used to examine students' grasp of micro theory fundamentals. The final exam will test students' understanding of the applications and articles we cover in the later part of the course. The final will be comprehensive in nature.

VII. SPECIAL NOTES

Auxiliary Services or Special Needs Services

Students that require special auxiliary services or special assistance must visit the office of Mr. José Rodriguez, at the University Orientation Program located at the first floor of Harris Building, at the beginning of the course or as soon as the knowledge for the need of such services is acquired.

Honesty, Fraud, and plagiarism Student General Regulation, Chapter 5

The lack of honesty, fraud, plagiarism and any other inappropriate behavior in relation to the academic work constitute major infringement sanctioned under the Student General Regulation. Major infractions, as provided by the regulation under student infringements can have as a result the suspension of the University for a defined period of time greater than a year or permanent expulsion from the University, among other sanctions.

Use of Electronic Devices

Cellular (mobile) telephones and any other electronic device that could interrupt the teaching-learning process or disrupt a milieu favorable for academic excellence will be deactivated. Critical situations will be dealt with in an appropriate manner. The use of electronic devices that permit the accessing, storing or sending of data during tests or examinations is prohibited.

VIII. RESOURCES

Recommended Textbooks:

- Cameron, A. C., and Triveldi P. K. (2009), *Microeconomics Using Stata*, College Station, TX: Stata Press.
- Geoffrey A. Jehle and Philip J. Reny (2011), *Advanced Microeconomic Theory* (3rd edition), Prentice Hall, ISBN-10: 0273731912, ISBN-13: 978-0273731917
- Walter Nicholson. And Christopher M. Snyder, (2011) *Microeconomics Theory: Basic Principles and Extensions* (with Economic Applications), 11th edition, Thomson South-Western, ISBN-10: 1111525536 ISBN-13: 978-1111525538

IX. BIBLIOGRAPHY

- Cameron, A. C., and Triveldi P. K. (2005), *Microeconomics: Methods and Applications*, Cambridge, U.K., Cambridge Univ. Press.
- Milton Friedman, " The Methodology of Positive Economics ", en Daniel M. Hausman (editor), *The Philosophy of Economics*, Cambridge University Press, London-New York, 1984.
- S. Charles Maurice and Christopher R. Thomas., *Managerial Economics*, 8th Edition, MacGraw-Hill 2004.
- Hal R. Varian, *Intermediate Economics: A Modern Approach*, Fifth Edition W.W. Norton & company, New York, 1999
- Rabin, Matthew, 2000, "Risk Aversion and Expected-Utility Theory: A Calibration Theorem," *Econometrica*, Vol. 68, No. 5, pp. 1281-1292.
- Rabin, Matthew and Richard H. Thaler, 2001, "Anomalies: Risk Aversion," *Journal of Economic Perspectives*, Vol. 15, No. 1, pp. 219-232.
- Arrow, K. and G. Debreu (1954) "Existence of equilibrium for a competitive economy," *Econometrica*, 265-290.
- Mailath, G. (1998) "Do people play Nash equilibrium? Lessons from evolutionary game theory," *Journal of Economic Literature*, 1347-1374.
- Myerson, R. (1999) "Nash equilibrium and the history of economic theory," *Journal of Economic Literature*, 1067-1082.
- Rothschild, M. and J. Stiglitz (1976) "Equilibrium in competitive insurance markets: an essay on the economics of imperfect information," *Quarterly Journal of Economics*, 629-649.

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