



Course: Microeconomics I

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Term: First Semester

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Office Hours: By appointment. Send e-mail to arrange a date.

Description:

Microeconomics is a collection of theories (models) whose goal is to formally explain (represent, emulate, simulate, replicate,...) and analyze the process of decision making for rational agents, and its consequences in different socio-economic contexts.

This courses provides the foundations of Microeconomics. We first review the basic model of individual's choice (preferences, utility representation, utility maximization, demand, properties), placing special emphasis on the assumptions used, its relevance, formal representation, and the logical consequences that one can derive from them. We then move to one extension of that model to introduce uncertainty. Finally, a parallel analysis will introduce the behavior of the cost minimizing/profit maximizing firm.

Objective:

At the end of the course students will have learned the basic tools of microeconomic theory, which are of extreme importance to initiate the analysis of more complex socio-economic situations. A central methodological objective of the course is that, at the end, the students have learned to formally derive the logical consequences of a set of assumptions.

Outline:

INTRODUCTION

I CONSUMER THEORY

1.1 Preference Relations.

1.1.1 Binary relations and their properties.

1.1.2 The consumption set.

1.1.3 Preference relations and their properties.

1.2 Utility.

1.2.1 Representability of preferences by a utility function.

1.2.2 Properties of the utility function.

1.3 Consumer Behavior I.

1.3.1 Budget constraint.

1.3.2 Utility maximization.

1.3.3 Marshallian demand functions.

1.4 Consumer Behavior II.

1.4.1 Indirect utility function.

1.4.2 Expenditure function and Hicksian demand functions.

1.4.3 Relations between the indirect utility and the expenditure functions and their properties.

1.4.4 Relations between the Marshallian and the Hicksian demand functions and their properties.

1.4.5 Duality in consumer theory.

1.5 Topics in Demand.

1.5.1 Revealed preference.

1.5.2 Measures of consumer welfare.

II CHOICE UNDER UNCERTAINTY

2.1 Expected utility.

2.1.1 Description of risky alternatives (lotteries).

2.1.2 Preferences over lotteries.

2.1.3 The expected utility theory.

2.1.4 Discussion and extensions of the expected utility theory

2.2 Monetary lotteries and risk aversion.

2.2.1 Monetary lotteries and the expected utility framework.

2.2.2 Measures of risk aversion.

2.2.3 Comparing lotteries in terms of returns and risk

III THEORY OF THE FIRM

3.1 Technology.

3.1.1 Representations of technology: production set, input requirement set, isoquants, production function.

3.1.2 Types of technologies.

3.1.3 Returns to scale.

3.1.4 Elasticities.

3.2 Cost minimization.

3.2.1 Cost minimization: cost and conditional input demand functions.

3.2.2 Properties of the cost and conditional input demand functions.

3.2.3 Short and long run families of cost functions.

3.3 Profit maximization.

3.3.1 Profit maximization: profit, output supply and input demand functions.

3.3.2 Properties of the profit, output supply and input demand functions.

3.3.3 The envelope theorem: comparative statics.

3.4 Duality in production.

References:

- MAS-COLELL, A., M. WHINSTON and J. GREEN, Microeconomic Theory, Oxford University Press, 1995.
- JEHLLE, G.A., P. J. RENY, Advanced Microeconomic Theory (Third Edition). Prentice hall. 2011.
- DEBREU, G., Theory of Value. Yale University Press. 1959.
- RUBINSTEIN, A., Lecture Notes in Microeconomic Theory: The Economic Agent, Princeton University Press, 2012.
Free download at <http://gametheory.tau.ac.il/arielDocs/>

Grading Policy:

Regularly distributed problem sets will be graded and returned to you. A final exam will count an 80% towards your nal grade. The remaining 20% will be computed based on your problem sets grades.