

INSTITUTO TECNOLÓGICO AUTÓNOMO DE MÉXICO
Department of Economics
Preliminary Syllabus

Eco-
Advanced Microeconomic Theory I (MA)
Microeconomía financiera I
Class:
Time: Wednesday 19:00 – 22:00
Place: Santa Teresa

Professor Andrei M. Gomberg
e-mail: gomberg@itam.mx
Phone: 5628-4000, extension 2917
Office Hours:
Wednesday 17:00 - 19:00 **and by**
appointment
Place: Santa Teresa CIE

INTRODUCTION

This is the first part of a two-trimester sequence of microeconomic theory for students specializing in finance and risk management. The principal objective of this course is introducing the students to approaches and techniques of modeling rational economic agents in a variety of economic environments.

The formal subject matter of this course derives from that of the Intermediate Microeconomics classes you may have taken in the past. Students are expected to be familiar with basic concepts of utility and profit maximization, demand and the notion of competitive equilibrium. In this course we are going to develop the theories further to deal with problems of uncertainty and information and intertemporal choice. We shall conclude by considering the equilibrium outcome of interaction between agents in a general equilibrium framework of the economy.

The formal mathematical prerequisites for the class are limited to the standard topics in calculus and probability, which should be familiar to most of the students. If, on occasion, additional material is needed it will be fully developed in class.

TEXTS

Due to somewhat experimental nature of this course, there is no single textbook assigned. Notes will be distributed in class periodically. This being an advanced-level course, you might find handy to have access to the following texts:

Popular Advanced Micro Textbooks

- Varian, H.: *Microeconomic Analysis* Norton Co., 1992, W.W. (or the equivalent Spanish-language edition)
- Jehle, G. and P. Reny: *Advanced Microeconomic Theory*, 2nd edition, Addison Wesley, 2001

Back-up (if you need a more basic text)

- Nicholson, W.: *Microeconomic Theory*, 7th edition, The Dryden Press, 1998 (or the equivalent Spanish-language edition)

EXERCISES AND HOMEWORKS

You will find that proper understanding of the material of this class is impossible without solving exercises. Therefore, these will be assigned regularly throughout the semester (sometimes informally). Additional exercises can be found after every chapter of the textbook.

Formal homeworks will be assigned on a regular basis, though they will not be graded; your ability to do them will be tested through quizzes (see below). You are encouraged to consult me about any problems you may have while working on them. All homeworks will be solved in class and written solutions to the more important exercises will be provided on request.

EXAMS AND GRADING

There will be three short quizzes, one midterm examinations and one final examination in this class. The final examination will be cumulative, in the sense that the exam questions may refer to any material covered from the beginning of the semester. The quizzes were short tests during which you will be asked to solve exercises from the homework. No make-up opportunities will be provided, unless an **extremely** valid medical or other reason can be documented. The final grade will be determined as follows:

Quizzes – 10%

Grade on the midterm - 40%

Grade on the final - 50%

WEB PAGE

All the information about the class (this syllabus, homeworks, sample exam questions, notes, grades, etc.) can be found on the web page of this course at <http://ciep.itam.mx/~gomberg/MF07>

COURSE OUTLINE

1. Consumer Theory

- 1.1. Preferences and Utility Functions (Jehle-Reny 1.2)
- 1.2. The Consumer's Problem (Marshallian demand) (Jehle-Reny 1.2)
- 1.3. Dynamic framework (finite horizon sequential economy)

QUIZ

2. Decision Making Under Uncertainty

- 2.1. Expected Utility
- 2.2. Measures of Risk
- 2.3. Insurance Contracts and Demand for Risky Assets
- 2.4. Value of Information
- 2.5. Dynamic framework (finite horizon sequential economy)

MIDTERM

3. Theory of the firm

- 3.1. Technology and Production Functions (Jehle-Reny 2.2)
- 3.2. Cost Minimization (Jehle-Reny 2.2-2.4)
- 3.3. Profit Maximization (Jehle-Reny 2.5)
- 3.4. Dynamic framework (finite horizon sequential economy)
- 3.5. Financial Assets

QUIZ

4. General Equilibrium

- 4.1. Exchange economy.
- 4.2. Production economy.
- 4.3. GE and uncertainty.

QUIZ

- 4.4. Sequential GE
- 4.5. Asset pricing

FINAL