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**CCA**

Allievi Program, Master in Economics, and Ph.D. in Economics

# MICROECONOMIC THEORY

## Fall 2023

Instructor: Ignacio Monzón

### Contact Information

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Office Hours: Drop by, or send me an email and we set up an appointment

### Introduction

This class presents a formal analysis of microeconomic theory focused on decision theory, consumption, production, aggregation, and choice under uncertainty. In this class we introduce, carefully and in depth, the analytical tools used in microeconomic theory. The introduction of these topics in a meticulous way serves the following purposes. First, mastering the theory of consumption and production is fundamental to understand (and work on) applied and theoretical labor economics, public economics or industrial organization. Consequently, students interested in these topics should invest in learning microeconomic theory. Second, the theory of choice under uncertainty permeates all economic research. In particular, uncertainty plays a key part in game theory, which is introduced in its own course in the fall semester. Third, the microeconomic theory of consumption and production is used in international economics and macroeconomics. Last but not least, microeconomic theory is fascinating by itself: it deals on how to build simple models that capture our intuition to study complex phenomena.

## Prerequisites

This class builds on prior exposure to economic concepts and to mathematical reasoning. As a guide, traditional mathematics sequences in multivariable calculus and some real analysis should suffice. There are concepts used in this class, however, that are not covered in such sequences. These concepts are introduced as needed. It is, therefore, necessary for students to have enough mathematical ability to acquire the necessary knowledge “on the fly”. An intermediate course on microeconomics would be a good background. Yet, students whose economics is limited to one introductory and one intermediate microeconomics courses may find both the material and the pace of this course rather daunting.

## Requirements and Grading

Formal requirements for the course include weekly problem sets, a midterm exam and a final exam. Problem sets are demanding, mandatory and an essential part of the course. Problem sets’ solutions provide students with a guide on how well they are grasping the material on a “real time” basis. Students are encouraged to work in groups on the problem sets. However, students should understand the material on their own, and hand in their own problem sets. The course grade is determined by the midterm, the final and the problem sets. No late submissions of problem sets are accepted. There are no make-up exams or alternative dates. Do not plan travel, take other classes, enroll in internships or make other commitments that conflict with class dates.

To account for possible unexpected problems, the lowest grade in a problem set will be dropped. There are three possible grades in each problem set: (+), which corresponds to 10/10, (✓), which corresponds to 7/10 and (–), which corresponds to 4/10. If the problem set is not handed in, the corresponding grade is 0/10.

The final grade will be a combination of the problem sets grades (15%), the midterm exam grade (40%) and the final exam grade (45%).

## Textbooks

The main text for the course is:

- Andreu Mas-Colell, Michael D. Whinston and Jerry R. Green, *Microeconomic Theory*, Oxford University Press, 1995 (MWG)

Alternate textbooks that students might also find useful are:

- Hal R. Varian, *Microeconomic Analysis*, W.W. Norton & Co., 1992
- Geoffrey Jehle and Philip Reny, *Advanced Microeconomic Theory*, Addison Wesley, 2000

- Rubinstein, Ariel, Lecture Notes in Microeconomic Theory, 2020

Available online at: <https://arielrubinstein.tau.ac.il/books/PUP2020.pdf>

**Material:** We will cover chapters 1 through 6 of MWG

**Remain up to date:** Check my webpage regularly.