

**Instructor:** Guillaume Haeringer  
guillaume.haeringer@baruch.cuny.edu  
**Office Hours:** by appointment

# Syllabus Microeconomic Theory I

## ECON 70100, Last offered in Fall 2018

### Textbook:

- (Recommended): Microeconomic Theory by Mas-Colell, A., Whinston, M.D., and J. R. Green (MWG) (Required);
- Microeconomic Analysis, by Varian, H. L.
- Advanced Microeconomic Theory An Intuitive Approach with Examples, by Felix Muñoz Garcia.

**Course Description:** Microeconomics is the study of how economic agents (individuals, workers, firms) make rational decisions and how their decisions translate into the supply and demand in markets. In Part I of Microeconomic Theory we will focus on consumer behavior, producer behavior, competitive markets and social choice and welfare. By the end of the course, it is expected that students learn the following skills:

- Solve economic models of optimization and do comparative statics;
- Perform proofs using mathematical concepts and methods.

### Course Pre-Requisites:

- Intermediate Microeconomics or (preferably MA Microeconomics).
- Math topics essential for this course: Set Theory and Elementary Real Analysis; Multi-variable Calculus, Constrained Optimization; Linear and Matrix Algebra.

A recommended math textbook as a reference is Mathematics for Economists by Simon, C. and L. Blume. Also refer to the Mathematical Appendix (Section M) in MWG as and when necessary.

### Learning Goals and Outcomes:

1. Students will learn to make general use of the techniques of mathematics (e.g., calculus, matrix algebra representation) in formulating microeconomic problems.

2. Students will learn how to solve certain types of fundamental microeconomic problems (e.g., utility maximization by consumers, profit maximization by firms)
3. Students will learn how to perform simple proofs of the type that form the building blocks of key microeconomic analytical results.
4. Students will learn how to formulate critiques of the classic assumptions used in microeconomic theory and understand how the interpretations of theoretical results are limited by their underlying assumptions.
5. Students will be exposed to and learn the analytic foundation of important microeconomic theorems (e.g., the expected utility theorem, Arrows Impossibility Theorem).

### **Grading Policy:**

The grading for the course will be based on the following weighting:

- Problem Sets (20%). Expected number of problem sets: 4–5  
Problem sets are meant to help reach learning goals 1, 2 and 3.
- Midterm Exam (40%) Second half of October.  
The midterm exam is meant to help reach learning goals 1, 2, 4 and 5.
- Final Exam (40%). TBA  
The final exam is meant to help reach learning goals 1, 2, 4 and 5.

### **Course policy:**

- Course material and communication through Blackboard.
- Problem sets come with a hard deadline: a student missing the deadline will get a grade of 0 for the assignment.
- No make-ups for exams and assignments, except in case of medical/legal *emergencies* (a doctor's or judge's or police officer's note will be required before).
- Problem sets have to be submitted in PDF, written in LaTeX (it's the profession's standard, graduate students need to learn it). Handwritten works will get a grade of 0.

## Course outline

Topic	Chapter/section from MWG
Consumer Theory	1.A → 1.D
	2.A → 2.F
	3.A → 3.E, 3.G and 3.I
Production	5.A → 5.D
Choice under Uncertainty	6.A → 6.C
Competitive markets	10.A → 10.F
Social choice and welfare	21.A → 21.E

## CUNY Policy on Academic Integrity

As stated in the CUNY Policy on Academic Integrity: Plagiarism is the act of presenting another person's ideas, research or writings as your own. The following are some examples of plagiarism:

- 'Copying another person's actual words without the use of quotation marks and footnotes attributing the words to their source;
- 'Presenting another person's ideas or theories in your own words without acknowledging the source;
- 'Using information that is not common knowledge without acknowledging the source;
- 'Failing to acknowledge collaborators on homework and laboratory assignments.
- 'Internet plagiarism includes submitting downloaded term papers or parts of term papers, paraphrasing or copying information from the internet without citing the source, and "cutting & pasting" from various sources without proper attribution.'
- A student who plagiarizes may incur academic and disciplinary penalties, including failing grades, suspensions, and expulsion.
- A complete copy of the CUNY Policy on Academic Integrity may be downloaded from the Graduate Center's home page.