COURSE OVERVIEW

Microeconomics is the study of individual decision-making by economic agents such as consumers and firms. From here, we proceed to evaluate how these agents interact under different market structures and describe equilibrium pricing. This allows us to comprehend the way resources are allocated in the economy, as well as the welfare implications of this process. Finally, we will also discuss how the government can intervene to correct different types of market failures and enhance the efficiency of outcomes. You are probably aware that many of these topics were already presented in Introduction to Microeconomics. We now introduce a more rigorous and precise set of analytical tools to study them. These will take the form of mathematical models used to highlight key relationships between economic variables subject to simple assumptions. You should therefore expect this class to be more driven by theory (rather than mere applications) and to call for more advanced mathematical reasoning. This will help you improve your economic thinking skills, uncover new insights and lay the foundation for study in other sub-disciplines such as labor economics, environmental economics, health economics, industrial organization and more.

LEARNING GOALS

Upon completion of this course, a student should be able to make use of rigorous mathematical and graphical tools to understand

- how consumers optimize utility by allocating income to different combinations of goods and services;
- how firms maximize profits by adopting different combinations of inputs and minimizing production costs;
- how consumers and firms determine prices in competitive markets, as well as the resulting short run and long run surplus distribution;
- why markets can fail (market power, public goods, externalities) and how the government should intervene to correct these failures.

Ultimately, the insights developed in this course should enable you to analyze real world examples and current events using the lens of microeconomic theory.
TIME AND LOCATION

Lectures: Monday and Wednesday, 3:30 - 4:50 pm, TBA
Discussion Sections: Monday, 6:30 - 8:20 pm, TBA
Class attendance is optional. However, regular attendance is strongly recommended. Some of the material covered in class may not be in the textbook.

CONTACT INFO

Instructor:  Professor Nelson Sá
Office: TBA
Email: nesa@brandeis.edu
Office Hours:  Monday, 5:00 – 6:15 pm
Tuesday, 1:30 – 3:00 pm
Wednesday, 5:00 - 6:15 pm
or by appointment
Student Lunches: by appointment (up to 4 students)

COURSE WEB PAGE

The material for the class will be posted on LATTE: https://moodle2.brandeis.edu/
Any schedule changes will be announced by email.

TEXTBOOK


Additional readings will be posted as needed (all readings are required).

PREREQUISITES

ECON 10A. Students must earn C- or higher in MATH 10A, or otherwise satisfy the calculus requirement, to enroll in this course.

You will be expected to be comfortable working with derivatives and solving systems of equations.
GRADING SCHEME

Problem Sets: 25%
Two Midterms (during class time): 20% each
Final Exam (cumulative): 35%

Please read the following additional instructions carefully:

1. There are no makeup exams, but you may drop the lowest midterm grade. If you drop one midterm, the final exam will count for 55% of the grade. Whichever grading scheme gives you the highest grade will be automatically used in determining the course grades.

2. No late problem sets are accepted. Your lowest problem set grade will be dropped. Clarification may be provided for questions, but you should first try answering problem set questions on your own or with your colleagues.

3. All grades will be posted on LATTE. Check these regularly to confirm that you have appropriately received credit for your problem sets.

4. Academic dishonesty is not tolerated. Please consult Brandeis University Rights and Responsibilities for all policies and procedures related to academic integrity. Allegations of alleged academic dishonesty will be forwarded to the Director of Academic Integrity. Sanctions for academic dishonesty can include failing grades and/or suspension from the university.

5. Course grades are not negotiable. It is inappropriate to request special consideration at the end of the term with respect to your grade.

6. Success in this four-credit course is based on the expectation that students will spend a minimum of nine hours of study time per week in preparation for class (readings, discussion sections, assignments, preparation for exams, etc.)

7. If you are a student with a documented disability on record at Brandeis University and wish to have a reasonable accommodation made for you in this class, please discuss this with me well in advance of any examination.
COURSE SCHEDULE

I. Consumer Theory
- Budget Constraint Chapter 2
- Utility and Preferences Chapters 3 and 4
- Choice Chapter 5
- Demand Chapter 6
- Slutsky Equation Chapter 8
- Uncertainty Chapter 12
- Consumer's Surplus Chapter 14
- Market Demand Chapter 15

II. Producer Theory
- Technology Chapter 19
- Profit Maximization Chapter 20
- Cost Minimization Chapter 21
- Cost Curves Chapter 22
- Firm Supply Chapter 23

III. Equilibrium in Competitive Markets
- Industry Supply Chapter 24
- Equilibrium Chapter 16
- Exchange Chapter 32

IV. Imperfect Competition and Game Theory
- Monopoly Chapter 25
- Monopoly Behavior Chapter 26
- Oligopoly Chapter 28
- Game Theory Chapter 29

V. Market Failures
- Externalities Chapter 35
- Public Goods Chapter 37