

Econ 80 - Microeconomic Theory Syllabus

Cansu Isler*

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1 Course Information

Professor: Cansu Isler

Email: cansuisler@brandeis.edu

Office Hours: TBD

Class Time: M,T,Th 11:10 AM–1:40 PM

This course will be taught remotely, via Zoom, at the meeting times specified above. The Zoom link for the course will be available on LATTE. Class sessions will be recorded and uploaded to LATTE within 24 hrs. of each class.

2 Course Description

2.1 Course Description

This course will introduce students to the basic analytic tools to understand the behavior of individuals and firms, and analyze their interaction in the market. We will cover the application of consumer theory, the theory of the firm, general equilibrium and welfare, game theory, and oligopolistic markets. By the end of the class, you should be equipped with the necessary skills to approach real-world economic and public policy questions in a rigorous way. For more information on major requirements, please see the [Economics Department Advising Information for Students](#) and the [Department webpage for more information on the Economics major and minor](#).

2.2 Learning Goals

1. Apply microeconomic principles and models to evaluate economic policy and news

*I thank Professors Ryan Westphal, Jingyi Huang, Benjamin Shiller, and Amelia Hawkins for generously letting me borrow from their syllabi. I reserve the right to tweak this syllabus as the needs of the class change.

2. Construct consumer and producer demand and supply functions
3. Identify and derive the relevant costs in analyzing consumer and producer behavior
4. Solve constrained optimization problems
5. Analyze perfect and imperfectly competitive markets
6. Describe how producers with market power determine prices and quantities

2.3 Prerequisites

- **Math requirement:** You MUST have either (a) successfully completed Math 10A (C- or higher), (b) attained at least a 4 on the AP Math AB test, (c) received at least a 3 on the AP Math BC test, or (d) passed the calculus placement exam that the Economics Department administers. See the [Department's Advising Information](#) for more details.
- **Economics requirement:** You must have either (a) taken Econ 10A, or (b) taken Econ 2A and received a B+ or higher.

3 Course Materials and Communication

- **Textbook:** Goolsbee, Levitt, and Syverson, *Microeconomics*, 3rd edition (Worth Publishers, 2019). A copy of the textbook is on reserve in the library.

The earlier edition (2nd ed.), including international editions, are similar and will work.

If you are having difficulty purchasing course materials, please make an appointment with your Student Financial Services or Academic Services advisor to discuss possible funding options and/or textbook alternatives.

Supplementary materials will be posted on LATTE on a topic-by-topic basis. It is important to note that for this course students are required to keep abreast of US and International Economic News. The following are examples of news sources: *The Economist*, *The New York Times*, and *The Wall Street Journal*

Official communication about the course will be via LATTE. It is your responsibility to check your University e-mail and LATTE regularly for any course updates or announcements. Email is the best way to reach me, and I'll try my best to respond to your email within a business day.

4 Course Requirements and Evaluation

4.1 Credit Hours and Workload

Success in this four-credit course is based on the expectation that students will contribute a minimum of 9 hours of study time per week in preparation for class.

4.2 Evaluation and Letter Grades

Final letter grades will be curved based on scores calculated as follows.

1. Problem Sets(4) - 20% (each 5%)
 - Problem Sets must be submitted as legible pdf files through LATTE.
 - Problem sets will be graded based on completion. If you make a serious effort to solve each problem, you will receive full credit.
 - You may (and are encouraged to) work collaboratively on problem sets. Each individual must submit their own completed problem set and should include a note specifying who they worked with.
 - Problem sets that are submitted late will be subjected to a 10-point reduction of grade for each late submission up to 5 days. Thus, up to a 1-day late submission, that is a 10-point grade reduction. For a 1-day to 2-day late submission, that is a 20-point reduction. Up to 3-, 4-, and 5-day late submissions, that corresponds to a 30-, 40-, and 50-point grade reduction. Problems sets that are submitted later than 5 days will get 0 credit.
2. Midterm (7/22/2024) - 25%
3. Final Exam (8/8/2024) - 40%
4. Participation 15%

4.3 Course Policy

- **Virtual Classroom Etiquette:** During classes and for all meetings with the Instructor, students are required to keep their cameras on. Brandeis University is committed to providing its students, faculty, and staff with an environment conducive to learning and working and where all people are treated with respect and dignity. Please refrain from behavior that is disruptive to the class or your classmates.
- **During Exam:** During exams, you may consult the instructor or proctor administering the exam if you need clarification on exam questions. Discussion or any other form of communication is not allowed. Students must keep their cameras on, and both their hands and exam papers should be visible at all times. Any students found to have cheated or engaged in any other unethical behavior will receive a grade of 0 for the exam and

will be referred to the appropriate disciplinary committees within Brandeis University for further action.

- **Exam Reschedule:** Students are permitted to reschedule a final exam if they meet the Registrar's criteria. Students who qualify to reschedule a final exam should follow the [instructions from the Office of the University Registrar](#).

5 Course Plan

1. **Introduction and Math Camp**
Introduction to the course, a discussion of markets, and review of concepts
GLS Chapter 1
2. **Supply and Demand**
Review of elasticities, cross price elasticities. Using demand and supply curves. Consumer and producer surplus. Government interventions.
GLS Chapter 2, 3
3. **Consumer Demand**
Consumer preferences, utility functions and indifference curves, Marginal Rate of Substitution, budget constraints, consumer choice, and consumer optimization, revealed preference.
GLS Chapter 4
4. **Derive Demand Functions**
Derivation of individual demand from utility maximization, income and substitution effects, market demand; Derivation of individual demand from expenditure minimization the Slutsky equation
GLS Chapter 5
5. **Producer Behavior**
Production functions, production with 1 input, 2 inputs, isoquants, Marginal Rate of Technical Substitution
GLS Chapter 6
6. **Cost Functions**
Cost functions, isocost lines, cost minimization problem. Supply-side and firm decisions. Different types of production costs, cost minimization problem, economies of scale.
GLS Chapter 7
7. **Perfect Competition and Monopoly**
Profit maximization. Monopoly and Monopsony. Markets with only one firm. Sources of monopoly. The monopolist problem.
GLS Chapter 8, 9

8. **Price Discrimination**
Non-uniform pricing strategies for firms with monopoly power.
GLS Chapter 10
9. **Game Theory and Oligopoly and Imperfect Competition**
Game Theory
Markets with few firms, quantity setting, price setting
GLS Chapter 11,12
10. **Choice Under Uncertainty**
Expected values. Preferences towards risk: risk aversion, risk neutrality, risk-loving behavior.
GLS Chapter 14
11. **Markets with Asymmetric Information**
Adverse selection, moral hazard, principal-agent problems, market signaling.
GLS Chapter 16
12. **General Equilibrium**
Multiple intersecting markets, gross substitutes, gross compliments. Social welfare function, production, consumption, and total efficiency. Equity and efficiency. Edgeworth boxes.
GLS Chapter 15

6 University Policies and Resources

6.1 Academic Honesty

You are expected to be familiar with, and to follow, the University's policies on academic integrity. You are expected to be honest in all of your academic work. 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 Student Rights and Community Standards. Sanctions for academic dishonesty can include failing grades and/or suspension from the university. [Citation and research assistance](#) can be found on the [university library website](#).

6.2 Accommodations

Brandeis seeks to create a learning environment that is welcoming and inclusive of all students, and I want to support you in your learning. If you think you may require disability accommodations, you will need to work with Student Accessibility Support (SAS). You can contact them at 781-736-3470, email them at access@brandeis.edu, or visit the [Student Accessibility Support home page](#). You can find helpful student FAQs and other resources on the SAS website, including guidance on how to know whether you might be eligible for support

from SAS.

If you already have an accommodation letter from SAS, please provide me with a copy as soon as you can so that I can ensure effective implementation of accommodations for this class. In order to coordinate exam accommodations, ideally you should provide the accommodation letter at least 48 hours before an exam.

6.3 Student Support

Brandeis University is committed to supporting all our students so they can thrive. If a student, faculty, or staff member wants to learn more about support resources, the [Support at Brandeis webpage](#) offers a comprehensive list that includes these staff colleagues you can consult, along with other support resources:

- [The Care Team](#)
- [Academic Services](#)
- [University Ombuds](#)
- [Office of Equal Opportunity](#)