



Department of Economics  
University of Southern California.

**ECON 303 26328R INTERMEDIATE MICROECONOMIC THEORY**

**UNITS: 4 Spring 2022 Tuesday/Thursday 4pm-5.50pm**

**LOCATION / TIME:** We will meet at **KAP 146** (Kaprielian Hall).

If for some legitimate reason you cannot make it to class in person, you can also attend the class live following the ZOOM link on your Blackboard course page, and the video recordings will be available if you want to go over them later. **As per USC policy, we are only meeting online over zoom (no in-person meeting!) for the first two weeks of class; 1/10 to 1/24 as of now. I will update you of the changes and news in class.**

**INSTRUCTOR:** Yilmaz Kocer [kocer@usc.edu](mailto:kocer@usc.edu), **OFFICE:** KAP 118, office hour zoom meeting room: <https://usc.zoom.us/j/7319310670> I will respond to emails most probably within an hour (will not exceed 24 hours for sure) if sent during reasonable hours 9am-11pm, weekday or weekends. Please use ECON 303 in the subject line in your emails. I will be more vigilant on being prompt with my replies closer to exams or assignment deadlines to be of immediate help.

**OFFICE HOURS:** I will be available in person in my office **KAP 118** and on office hour zoom room on **Tue/Thu 12.30-2.30pm**. The week(s) before the midterms, Quizzes and the final, I will announce many extra office hours and as demand arises throughout the semester. If you can't make them or if you have a short question, email me to arrange another time to meet over zoom.

**REQUIRED TEXTBOOK:** **Besanko, David and Ronald R. Braeutigam, Microeconomics, 5th Edition, Wiley Inc.** You can buy a used 5<sup>th</sup> edition (used books are around \$40-\$60 on Amazon), or buy a 6<sup>th</sup> edition (minor changes in 3-4 pages over the whole book in the 6<sup>th</sup> edition; I will use the 5<sup>th</sup> ed; so you can buy the cheaper 5<sup>th</sup> edition too). I checked each and every end-of-chapter problem in the 5<sup>th</sup> and 6<sup>th</sup> editions manually and for all the problems we'll be dealing or you'll possibly be practicing with, 5<sup>th</sup> ed solution manual is identical in numbering and content with the 6<sup>th</sup> edition; so you can go ahead and buy the 5<sup>th</sup> ed textbook. I strongly suggest you buy a print copy, as it is an excellent book you can proudly keep in your library for life, or rent e-text relatively cheaply from <https://www.vitalsource.com/>

**Course BLACKBOARD Website:** All course materials; instructions, announcements, lecture recordings, discussion/feedback, exams, quizzes, assignments, sample exams/assignments, answer keys, your grades etc. will be posted on Blackboard. I already put under the *resources* section the **solution manual** for the end of chapter problems for your textbook, all in one single pdf file. I also put the **powerpoint presentation slides** in one single pdf file. I do not follow the slides, but I believe it is a good review tool for you to go over before the exams, as a short summary of material.

**COURSE DESCRIPTION:** This course provides a rigorous foundation for microeconomic theory, anchoring what you have learned in the microeconomics principles class on a sound technical mathematical basis and gives you analytical tools that will be fundamental in most upper level classes in Economics, Finance and/or Accounting. We will first study the behavior of individual consumers and firms, how they decide under conditions of scarcity and uncertainty. We will analyze how firms minimize costs and maximize profits, and compete against others in a perfectly competitive market. We will also look at situations in which the firm is a monopolist, or competes with a limited number of rivals. Some of the key concepts we will introduce include economic incentives, marginal analysis, opportunity cost (which costs matter), market efficiency (what does it mean for a market to function well) and strategic behavior (how to predict and respond to your rivals' decisions). We will also study a curated subset of market failures; adverse selection, public goods, externalities where markets may fail to deliver efficient outcomes.

**PREREQUISITES:** Econ 203 and Econ 205 and some calculus

Together with pre-calculus, you will need a very small bit of calculus to do the work in this course; even though the assignments, quizzes, homeworks, exams will almost always involve simple pre-calculus level calculations, the required bit of calculus will be minimal. Namely, you need to be able to ;

- 1) Solve one variable (x) linear equations, plot the corresponding line as a graph, calculate its slope, intercepts.
- 2) Solve two linear equations in two variables (x,y).
- 3) Calculate the derivative of polynomials of one variable (like the derivative of say “ $x^3 - 2x^2 + 3x - 5$ ”) and logarithms (as in the derivative of  $\ln(x)$  being  $1/x$ ), and also employ the product rule and chain rule if there are compound terms (as in the derivative of  $\ln(x^2+3)$  being  $2x/(x^2+3)$  )

I will go over all we need (the items above and any extras) in math reviews throughout the course.

**LEARNING OBJECTIVES:**

At the successful completion of this course, students will be able to:

- Solve the consumer's utility maximization problem to derive demand.
- Solve the firm's cost minimization problem to derive input demands and calculate the cost function.
- Use the cost function to solve the perfectly competitive firm's profit maximization problem and derive supply.
- Evaluate the impacts of changes in exogenous variables on the optimal behavior of consumers and firms and the resulting impacts on utility and profits.
- Assess and quantify the impacts of public policies on competitive market equilibrium.
- Solve the monopolist's profit maximization problem and calculate the optimal price and quantity.
- Solve for the equilibrium quantity and price in an oligopolistic market, where firms are competing in prices (Bertrand) or in quantity (Cournot)
- Evaluate the implications of departures from perfect competition, such as markets with externalities, public goods, monopolies, or imperfect competition.

**Class Participation**

Even though it is not directly part of your grade, your attendance and active presence in class is essential. Stay engaged, ask questions if anything is unclear, suggest answers to questions I pose, read the textbook and practice with the end of chapter problems (particularly the ones I recommend on blackboard announcements). The course material is dense, loaded with many ideas, concepts, problems and exercises, so a casual interest and less-than-full commitment will not suffice to be successful in this course. Also, many hints about the assignments, exams will be given during the classes so attending the class is very important.

**MOST IMPORTANT:** Let me know in the first week of the class if you are unable to be in class in person but would attend the live zoom lecture or watch zoom recordings. Even more importantly, **let me know (email me!) ASAP if you are (for a legitimate reason) unable to take the quizzes, midterms, final in person in the classroom, so that we can make arrangements for proctoring.**

**GRADING CRITERIA:**

Grading component	%weight
Midterm 1 <b>March 1st Tuesday</b>	17%
Midterm 2 <b>April 28<sup>th</sup> Thursday</b>	18%
4 Problem Sets	20%
3 Quizzes	15%
FINAL EXAM <b>May 5th THURSDAY 4.30-6.30pm</b>	30%
<b>Grade Recovery Homework (OPTIONAL)</b>	<b>will replace 10% (see below)</b>

## GRADING

All graded elements in this course will be in the format of mathematical problems, just like the end of chapter problems in your textbook. **No multiple-choice questions or questions about definitions/terms throughout the course.** Of course, I may ask you to comment and interpret your answers to the problems from an economic perspective.

*Quizzes will involve 1 (maybe 2 short ones), midterms 4-6, the final exam 6-7, problem sets 4-7 (longer and tougher ones) such problems, potentially with many parts. Dates for all quizzes, homework deadlines, midterms and the final exam are already set, but quiz dates and homework deadlines are negotiable. (we )*

The final exam date is set in stone; Friday December 10th 11am-1pm.

All exams, quizzes and the final will be taken without books or notes, no cell phones are allowed. Calculators are allowed, even though I don't think you'll need it. I assume you'll abide by the student academic integrity code <https://sjacs.usc.edu/students/academic-integrity/> in your actions and ethics.

**All quizzes, midterms, final, homeworks will be posted on Blackboard and I expect you to submit your answers (the scan pdf of your answer sheets) for all exams, quizzes, homeworks back on the relevant blackboard assignment page by its due date/time. PLEASE practice with taking pictures of a paper document with your cell phone and uploading it on your computer as a single pdf document (using Google drive app or iphone's Notes app.** For in-class tests (the quizzes, midterms, the final exam), if we have in person classes by then, I WILL PRINT the test sheets and you will write your answers on the test paper as in the good old days before the covid epidemic. Of course, alternatively you can use a digital device to access Blackboard during the test and post your answers there too if you like.

**The final exam will be cumulative**, and it is similar in structure but about %30 longer than a midterm. **The midterm exams will NOT be cumulative**; for example, Midterm 2 will only cover the material covered after midterm 1.

- **Quizzes (3 in total)** will be taken in the FIRST 30 mins of the class on the quiz date and will involve content since the previous graded element (be it homework, quiz, midterm...etc) up until (excluding) the content on the very day of the quiz.
- **Homeworks:** 4 problem sets will be assigned throughout the semester, roughly one per 2-3 chapters of textbook content, I will announce both in class and on Blackboard the due dates for the problem sets (you will at least have 3 days to complete it). Late assignments will receive NO credit as I will post the answers on blackboard right at the deadline. You may work together on assignments and form study groups; however, you must each write down your own answers, submit individually; and **be prepared to present them during class if called upon.**
- **OPTIONAL Grade Recovery Homework** is a longer (6-9 problems) comprehensive OPTIONAL homework covering the whole course that I will use to improve your midterm and final exam grades, by replacing around %10 of weight. It is optional, it will not increase your grade above B- (will help only those that are currently ending up with a worse-than-(B-) letter grade), and it will not change the relative order of the grades of any two students; the whole point is to help those who didn't do well on midterms and the final. Surely all students should solve the homework for themselves for final exam practice.

*If you ever have a conflict with an exam date, see me as soon as you are aware of it. **There is no makeup exam for midterms or quizzes!** If you miss the midterm/final/quiz for any unjustified reason you will get a score of 0 !! If for a justified reason (bring me the doctor's note in this case) you are going to miss any midterm exam let me know ASAP, BEFORE the midterm; and I will distribute its weight to upcoming exams*

**How to do well in this course:** Listen to the lectures carefully and read the relevant sections from your book beforehand. Practice problems. AS MANY AS YOU CAN! Go over the problem sets and textbook end of chapter problems (especially the subset that I will recommend on blackboard announcements) very very carefully. Make sure to understand the reason behind every equation in the textbook and in the problem sets and exams. Work with your friends on the difficult problems. Learn from each other. Seek help from me; I am here to help you. Your textbook is an excellent textbook; dense and comprehensive with numerous end of chapter problems for practice.

### TOPICS AND TENTATIVE OUTLINE

Week	Dates	Topic	Besanko
1	1/11, 1/13	Introduction, Demand and Supply Analysis - Overview	Ch.1, Ch.2
2	1/18, 1/20	Overview, Math Review <b>Homework 1</b>	Ch.2, Appendix A1-A7
3	1/25,1/27	Math Review, Consumer preferences	Ch. 3
4	2/1, 2/3	Consumer preferences, Consumer Choice	Ch.3, Ch.4
5	2/8, 2/10	Consumer Choice, Consumer demand <b>Quiz 1</b>	Ch.4, Ch.5
6	2/15, 2/17	Consumer demand, <b>Homework 2</b>	Ch.5
7	2/22, 2/24	Consumer demand, Review for midterm 1,	Ch.5
8	3/1, 3/3	<b>Midterm 1</b> , Production and cost theory	Selected parts of Ch. 6,7,8
9	3/8, 3/10	Production function, cost minimization, cost curves <b>Homework 3</b>	Selected parts of Ch. 6,7,8
10	3/15, 3/17	SPRING RECESS – no classes	
11	3/22, 3/24	Perfect competition, competitive market applications	Ch.9, Ch.10
12	3/29, 3/31	Competitive markets, monopoly <b>Quiz 2</b>	Ch.10, Ch.11
13	4/5, 4/7	Monopoly, oligopoly <b>Homework 4</b>	Ch.11, Ch.13
14	4/12, 4/14	Market structure and competition, oligopoly	Ch.13
15	4/19, 4/21	Game Theory and strategic behavior, Risk and information, <b>Quiz 3</b>	Ch.14, Ch.15
16	4/26, 4/28	Review for midterm 2, <b>Midterm 2</b>	Ch.15
		<b>GRADE-RECOVERY (optional) HOMEWORK</b> due 5/2 Monday 11pm pst	
	<b>5/5 THU</b> <b>4.30-6.30pm</b>	<b>FINAL EXAM</b>	

**Regrade Requests:** After meeting with your grader **Rihyun Park ([rihyunpa@usc.edu](mailto:rihyunpa@usc.edu))**, if you still feel your work was graded incorrectly, please submit your work and a brief written explanation of your argument. I will regrade the entire answer, which means that your score may go down.

You have two weeks after the announcement of a graded element to voice your concerns about any incorrect grading or missing grades about that element; so please do not ask me about a missing, say, Quiz 1 grade, at the end of the semester, months later.

### **Support Systems:**

**Student Health Counseling Services - (213) 740-7711 – 24/7 on call**

[engemannshc.usc.edu/counseling](http://engemannshc.usc.edu/counseling) Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

**National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call [suicidepreventionlifeline.org](http://suicidepreventionlifeline.org)** Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

**Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-4900 – 24/7 on call [engemannshc.usc.edu/rsvp](http://engemannshc.usc.edu/rsvp)** Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

**Office of Equity and Diversity (OED) | Title IX - (213) 740-5086 [equity.usc.edu](http://equity.usc.edu), [titleix.usc.edu](http://titleix.usc.edu)**

Information about how to get help or help a survivor of harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants. The university prohibits discrimination or harassment based on the following protected characteristics: race, color, national origin, ancestry, religion, sex, gender, gender identity, gender expression, sexual orientation, age, physical disability, medical condition, mental disability, marital status, pregnancy, veteran status, genetic information, and any other characteristic which may be specified in applicable laws and governmental regulations.

**Bias Assessment Response and Support - (213) 740-2421 [studentaffairs.usc.edu/bias-assessment-response-support](http://studentaffairs.usc.edu/bias-assessment-response-support)** A venue to report incidents of bias, hate crimes, and microaggressions for appropriate investigation and response.

**The Office of Student Accessibility Services - (213) 740-0776 <https://osas.usc.edu/>**

Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

**USC Support and Advocacy - (213) 821-4710 [studentaffairs.usc.edu/ssa](http://studentaffairs.usc.edu/ssa)** Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

**Diversity at USC - (213) 740-2101 [diversity.usc.edu](http://diversity.usc.edu)** Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

**USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call [dps.usc.edu](http://dps.usc.edu), [emergency.usc.edu](http://emergency.usc.edu)**

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

**USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-120 – 24/7 on call [dps.usc.edu](http://dps.usc.edu)**

Non-emergency assistance or information.