

ECONOMICS 100C: MICROECONOMICS

Winter 2020

Section A MWF 1:00-1:50, CENTR 214

Section B MWF 2:00-2:50, CENTR 214

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Office Hours: Th 2-4 in Econ Bldg 111

Discussion Sessions (no sessions first week):

A01 CENTR 222; M 6:00pm-6:50pm

A02 CENTR 222; M 7:00pm-7:50pm

B01 CENTR 222; W 6:00pm-6:50pm

B02 CENTR 222; W 7:00pm-7:50pm

TAs (Office Hours in PSET lab, see below)

Gregory Raiffa (graiffa@ucsd.edu)

Parker Rogers (parogers@ucsd.edu)

Yue Zhang (yuz776@ucsd.edu)

Course Objectives: Econ 100C examines departures from the neoclassical model including imperfect competition, strategy, asymmetric information, and signaling.

Required Texts:

(1) Varian, H. R. 2014. *Intermediate Microeconomics with Calculus*. W. W. Norton & Company, Inc.

(2) Mark Machina's Econ 100ABC Math Handout.

Weekly Homework: Each week on Friday, I will post practice problems on TritonEd. They will not be graded. The best way to prepare for the exams is to form study groups and practice doing the problem sets together. I will post the answers after the problems are reviewed in TA sessions.

Exams: Grading will be based on two midterms (25% each) and a final examination (50%). The final exam will be cumulative. You must take both midterms. All exams are closed book, and you may not use calculators and cell phones during the exams.

Regrade Requests: You will have one week during which you can request a regrade of your exam. Your whole exam will be regraded, and your score can go up or down. You are allowed only one regrade request for the quarter. However, if your request is successful (your score goes up), you will get another regrade request.

100C Problem Solving and Economics Tutoring Lab (PSET): Undergraduate and graduate TAs will be available to answer your questions in Econ 200 most evenings and on Sunday. In Econ 200 there is room for you to work on your homework and get your questions answered if you get stuck. We hope to offer PSET on MTWTh 5:30-8:30pm and on Sunday 4-8pm, but please check the web page for actual hours: <http://economics.ucsd.edu/undergraduate-program/courses/pset-lab.html>

Supplemental Instruction (SI) group study schedule:
 Minnie Guo (siguo@ucsd.edu) Thursdays 5:30-6:50pm CENTR 316

Easter Egg: I planted an intentional mistake into the solution of one of the problems in one of the problem sets. This is a significant conceptual error and not a typo. The first student to find this mistake and successfully explain to me why the solution is wrong (during my office hours) as well as offer the correct solution will see their score for the final multiplied by 1.2.

Schedule:

Week	Topic	Textbook Chapter	Video
1	Review of Perfect Competition, Government Intervention in the Market	16	E.2
2	Monopoly	25	G.1
3	Pricing	26	G.2
Midterm 1, January 31st at 5pm in CENTR 212/214			
4, 5	Game Theory	29, 20	F
6, 7	Oligopoly	28	G.3
No class on Friday, February 28th			
Midterm 2, March 2nd at 7pm in CENTR 212/214			
8	Externalities	35	H.1
9	Public Goods	37	H.2
10	Asymmetric Information	38	I
Final (Section A: March 20th, 11:30-1:30; Section B: March 16th, 3:00-5:00)			

b FAMOUS OPTIMIZATION PROBLEMS IN ECONOMICS

Optimization Problem	Objective Function	Constraint	Control Variables	Parameters	Solution Functions	Optimal Value Function
Consumer's Problem	$U(x_1, \dots, x_n)$ utility function	$p_1 \cdot x_1 + \dots + p_n \cdot x_n = I$ budget constraint	x_1, \dots, x_n commodity levels	p_1, \dots, p_n, I prices and income	$x_i(p_1, \dots, p_n, I)$ regular demand functions	$V(p_1, \dots, p_n, I)$ indirect utility function
Expenditure Minimization Problem	$p_1 \cdot x_1 + \dots + p_n \cdot x_n$ expenditure level	$U(x_1, \dots, x_n) = u$ desired utility level	x_1, \dots, x_n commodity levels	p_1, \dots, p_n, u prices and utility level	$h_i(p_1, \dots, p_n, u)$ compensated demand functions	$e(p_1, \dots, p_n, u)$ expenditure function
Labor/Leisure Decision	$U(H, I)$ utility function	$I = I_0 + w \cdot (168 - H)$ budget constraint	H, I leisure time, disposable inc.	w, I_0 wage rate and nonwage income	$168 - H(w, I_0)$ labor supply function	$V(w, I_0)$ indirect utility function
Consumption/Savings Decision	$U(c_1, c_2)$ utility function	$c_2 = I_2 + (1+i) \cdot (I_1 - c_1)$ budget constraint	c_1, c_2 consumption levels	I_1, I_2, i income stream and interest rate	$c_1(I_1, I_2, i), c_2(I_1, I_2, i)$ consumption functions	$V(I_1, I_2, i)$ indirect utility function
Long Run Cost Minimization	$w \cdot L + r \cdot K$ total cost	$F(L, K) = Q$ desired output	L, K factor levels	Q, w, r desired output and factor prices	$L(Q, w, r), K(Q, w, r)$ output-constrained factor demand functions	$LTC(Q, w, r)$ long run total cost function
Long Run Profit Maximization (in terms of Q)	$P \cdot Q - LTC(Q, w, r)$ total profit	none	Q output level	P, w, r output price and factor prices	$Q(P, w, r)$ long run supply function	$\pi(P, w, r)$ long run profit function
Long Run Profit Maximization (in terms of L and K)	$P \cdot F(L, K) - w \cdot L - r \cdot K$ total profit	none	L, K factor levels	P, w, r output price and factor prices	$L(P, w, r), K(P, w, r)$ factor demand functions	$\pi(P, w, r)$ long run profit function