ECONOMICS 100C: MICROECONOMICS

Fall 2018   **Maxim Sinitsyn, msinitsyn@ucsd.edu**
Section A: MWF 11:00-11:50, CENTR 113   **Office Hours: Tu 2-4 in Econ Bldg 111**
Section B: MWF 12:00-12:50, CENTR 113

Discussion Sessions:
A01 PETER 104; Tu 7:00pm-7:50pm   B01 PETER 104; Th 7:00pm-7:50pm
A02 PETER 104; Tu 8:00pm-8:50pm   B02 PETER 104; Th 8:00pm-8:50pm

TAs (Office Hours in PSET lab, see below)
Grad: Wendy Zeng (w5zeng@ucsd.edu)
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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.

Web Resources: You are encouraged to take advantage of the following supplemental material for the 100ABC sequence, available free over the Internet.

(1) Martin Osborne's intermediate mathematics tutorial:
http://www.economics.utoronto.ca/osborne/MathTutorial/index.html
(2) Preston McAfee's Introductory textbook (this material is at a level between most microeconomics principles textbooks and Perloff's more advanced treatment.)   http://www.introecon.com/

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: I will give back the midterm exams in class. You can ask for a regrade before you leave the room with your exam. Your whole exam will be regraded, and your score can go up or down. If you don't think you have enough time to look at your exam after the class, you can pick up your exam from my office during my office hours.

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 (5:30-8:30) and on Sunday (4-8), but please check the web page for actual hours: http://economics.ucsd.edu/undergraduate-program/courses/pset-lab.html)

Future Opportunities: 100CH: If you earn an A/A- grade in my class this quarter, I recommend that you take the one-unit honors class 100CH. Honors classes are capped at 20 students and you will get to know the faculty member well (important for getting informed letters of recommendation). These classes typically have you give a short presentation and write a short paper. Presenting and writing in the major are two valuable skills that are challenging for us to offer in large classes. I recommend you take advantage of the 100CH opportunity.

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, October 26th			
4, 5	Game Theory	29, 20	F
6, 7	Oligopoly	28	G.3
Midterm 2, November 16th			
8	Externalities	35	H.1
9	Public Goods	37	H.2
10	Asymmetric Information	38	I
Final, Section A: December 11th, 11:30-1:30;			
Section B: December 13th, 11:30-1:30			

FAMOUS OPTIMIZATION PROBLEMS IN ECONOMICS

Optimization Problem	Objective Function	Constraint	Control Variables	Parameters	Solution Functions	Optimal Value Function
Consumer's Problem	$U(x_1,...,x_n)$ utility function	$p_1 \cdot x_1 + ... + p_n \cdot x_n = I$ budget constraint	$x_1,...,x_n$ commodity levels	$p_1,...,p_n, I$ prices and income	$x_i(p_1,...,p_n,I)$ regular demand functions	$V(p_1,...,p_n,I)$ indirect utility function
Expenditure Minimization Problem	$p_1 \cdot x_1 + ... + p_n \cdot x_n$ expenditure level	$U(x_1,...,x_n) = u$ desired utility level	$x_1,...,x_n$ commodity levels	$p_1,...,p_n, u$ prices and utility level	$h_i(p_1,...,p_n,u)$ compensated demand functions	$e(p_1,...,p_n,u)$ 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