ECONOMICS 100C: MICROECONOMICS

Summer 1 2020, Zoom ID: 883-658-9887 **Maxim Sinitsyn, msinitsyn@ucsd.edu**
TTh 8:00am-10:50am **Office Hours: MTW 1:00-2:00**

Discussion Sessions:
W 9:00am-10:50am

TAs	*Office Hours*	*Zoom ID*
Bei Lou (b7luo@ucsd.edu)	M 6:30pm-8:30pm	990 7505 8090 (pswd: 662674)
Sidney Tate (sctate@ucsd.edu)	W 3:00pm-5:00pm	968 6878 0103 (pswd: 554608)

Study Group Sessions: Fridays 10:00am-11:20 at https://ucsdcommons.adobeconnect.com/econ100c_b00_sg/
Madison Kha (mkha@ucsd.edu)

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

Required Texts:
(1) Perloff's Microeconomics: Theory and Applications with Calculus. The e-book is on our class web under Redshelf. The e-book costs $47 and you will have access for 4 years. You can use the e-book for free for one week. NOTE: this is an opt-out system: if you don't want the e-book, you must opt out or you will be charged for the book.
(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 Varian's more advanced treatment.) http://www.introecon.com/

Weekly Homework: Each week, I will post practice problems on Canvas. 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 discussion sessions.

Exams: We will have four tests in this class (including the final exam). The first three tests will take place during the class time on Thursdays of weeks 2, 3, and 4. The last test will take place during the scheduled time of the final exam for this class. Each test will carry equal weight of 25% each. All exams are closed book, but you can use a calculator. While I will do what I can to keep to this structure of the assessments for this course, the evolving situation may make it necessary for me to make a change.

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 you request is successful (your score goes up), you will get another regrade request.

Academic Integrity: To protect academic integrity this quarter, we are likely using either Loom or Zoom. These programs use video and audio recording or other personal information capture for the purpose of facilitating the course and/or test environment. UC San Diego does not allow vendors to use this information for other purposes. Recordings will be deleted when no longer necessary. However, if cheating is suspected, the recording may become part of the student's administrative disciplinary record. Finally, I reserve the right to give an oral test if I feel it is necessary to uphold academic integrity.

Schedule:

Week	Topic	Textbook Chapter	Video
1	Review of Perfect Competition, Government Intervention in the Market		E.2
	Monopoly	11	G.1
2	Pricing	12	G.2
2, 3	Game Theory	13	F
4	Oligopoly	14	G.3
5	Externalities	17	H.1
	Public Goods	17	H.2
	Asymmetric Information	18	I

Final, August 1st, 8:00am

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