ECONOMICS 100C: MICROECONOMICS

Winter 2015 **Maxim Sinitsyn, msinitsyn@ucsd.edu**
Section A: MWF 2:00-2:50, CENTR 115 **Office Hours: Tu 2-4 in Econ Bldg 111**
Section B: MWF 3:00-3:50, CENTR 115

TAs	Session place/time	Office, Office Hours
Sec. A: Bong Hwan Kim bhk002@ucsd.edu	HSS 1330; Tu 8:00-8:50	ECON 116; Tu 5-7
Sec A: Jason Bigenho jbigenho@ucsd.edu	HSS 1330; Tu 7:00-7:50	ECON 116; Th 12:30-2:30
Sec. B: Erik Lillethun elilleth@gmail.com	CENTR 109; W 7:00-7:50 CENTR 109; W 8:00-8:50	ECON 122; W 10-12

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

Required Texts:
(1) Perloff, Jeffrey M. (2011) *Microeconomics: Theory and Applications with Calculus, 2nd edition.* Pearson/Addison-Wesley.
(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 Ted. 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.

Schedule:

Week	Topic	Textbook Chapter
1	Review of Perfect Competition, Government Intervention in the Market	9.2, 9.3, and 9.5
2	Monopoly	11
3	Pricing and Advertising	12
	Midterm 1, January 30;	
4, 5	Game Theory	13
6, 7	Oligopoly and Monopolistic Competition	14
	No class on Friday, February 27th;	
	Midterm 2, March 2;	
8, 9	Externalities and Public Goods	17
10	Asymmetric Information	18
	Final (Sec. A: March 16, 3:00-5:00; Sec. B: March 18, 3:00-5:00)	

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