ECONOMICS 100A: MICROECONOMICS, Winter 2017

Tuesday, Thursday 12:30-2:00pm, Center 101

Instructor:

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Office Hours: Monday 10-noon in Econ 221 and Zoom office hours (online) Wednesday 9-11 am.

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Prerequisites: Microeconomic principles (Econ 1) and a year of calculus (either Math 10C or 20C or 21C).

Assessment: There are two in-class midterm exams: Friday, January 27th and Friday, February 24th from 7:30-9:00 in PETER 108. Each midterm is worth 245 points of your grade. The final exam is cumulative and is worth 500 points. There is a calculus prerequisite quiz worth 10 points on Thursday, January 12. Extra credit: if you are in the top quarter of the "good answerers" on the Piazza discussion board I will give you a 10 point bonus. The final exam is Saturday, March 18 from 3:00-6:00 pm.

Course Objectives: As the first class in the micro sequence, Econ 100A is designed to teach you how to set up, solve and analyze optimization models and apply these mathematical models to the theory of the consumer (commodity demand, labor supply and consumption/savings decisions). Finally, we will examine the fundamentals of decision making under risk and uncertainty.

Course Materials:

Required Textbook and Reading:

- (1) Varian, Hal, *Microeconomics with Calculus*. There is a custom version (a new cover, identical book) at the bookstore for \$84. It will be used in 100B in SP17 and in 100C in FA17. You can sell the book back to the bookstore for \$42 which means it costs \$14 per quarter to use this book.
- (2) Machina, Mark (2010), Math Handout

Additional Readings:

There are several other calculus-based intermediate textbooks that you could use to supplement Varian including Nechyba's *Microeconomics: An Intuitive Approach with Calculus*, Nicholson and Snyder's, *Microeconomic Theory*, and Perloff's *Microeconomics: Theory and Applications with Calculus*. A free online textbook at a level between Econ 1 and 100A, written by Preston McAfee for his CalTech intro class (Preston is now the Chief Economist at Microsoft), can be found at http://www.introecon.com/.

Mandatory Discussion Sessions: These mandatory sessions are conducted by the TAs who will work through problem sets, and answer your questions regarding lectures, the textbook, homework problems and old exam problems. Please go to the discussion section you are enrolled in.

Ted: This is where you access the syllabus, class handouts, your grades, homework assignments, etc. I have also posted my past 100A exams to give you some additional practice. NOTE: I will not post answers to my past exams but we are happy to work on these problems with you during office hours and discussion.

100A 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 are hoping to offer PSET on MTWTh from 5:30-8:30pm and Sunday 2-6pm but please check the web page for actual hours: http://economics.ucsd.edu/undergraduate-program/courses/pset-lab.html)

Piazza: We will be using Piazza for class discussion. The system is highly catered to getting you help fast and efficiently from classmates, the TA, and myself. If the number of times your answers are marked as "good" by me or the TAs is in the top 25% of the class, you will earn a 10 point bonus. Find our class page at: https://piazza.com/ucsd/winter2017/econ100a/home. NOTE: I will deduct 10 points if you misuse Piazza (alter an answer already marked as correct, ask and answer your own question, etc.)

Weekly Homework: It is tremendously important that you keep up with the course and that you practice solving economic problems. Each Saturday we will post homework assignments on TritonEd. During your discussion section, your TA will work on the homework assignment for that week. We will post the homework answer key the following Saturday. These homeworks are voluntary, not graded, but are the most important part of the course. To make the most of your time in this course, do these homeworks.

Mathematics Tutorial for Economists: Written by Martin Osborne at the University of Toronto http://www.economics.utoronto.ca/osborne/MathTutorial/index.html, Chapters 1-6 of this will help you review the material that you learned in Math 10ABC or 20ABC that are the most important for this course.

Future Opportunities:

100AH: If you earn an A/A- grade in my class this quarter, I recommend that you take the one-unit honors class 100AH in the fall. 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 100AH opportunity.

Administrative Issues:

- (1) If you have a documented disability, please bring your documentation to me as soon as possible so that I can make suitable accommodations for you. If you believe that you have a disability and desire accommodation, please register with the Office for Students with Disabilities
- (2) Any student found responsible for violating UCSD's academic integrity policy will earn a failing grade for the course. In addition to my academic penalty, the Council of Deans of Student Affairs will impose a disciplinary penalty.

(3) EXAMS

- a. You must bring your student ID to all exams.
- b. You may only use a pen/pencil and a straight edge during exams.
 - i. Exams are closed book and you may not use any notes.
 - ii. Exams are electronic-free: you may not use calculators, headphones, cell phones, etc.
- c. You will be assigned a seat for each exam which will be posted on TritonEd the hour before the exam. There is a significant grade penalty for not sitting in your assigned seat.
- d. If you arrive late to an exam, I will allow you to take the exam in the time that remains as long as no one has turned in his/her exam and left the room.
- e. There are no bathroom breaks during the midterm exams (please let me know immediately if this policy will create a hardship for you).
- f. If there is a mistake adding the points on your exam, bring it to my attention within one week of the exam being returned and I will correct it.
- g. If you believe your exam has not been graded properly, you may request a re-grade within one week of the exam being returned. I will re-grade your entire exam. The re-graded score will be your grade for the exam. You may not ask for another re-grade or go back to your first grade.

Week	Text, Math Handout	Video	Topic
(1) 1/9	Ch.1 Math Handout: Sects. A, B, C Ch. 3.1, 3.2, 3.5 Ch. 4 intro, 4.1, 4.2 3.3	B1-3 C1a-C1j A2	 I. Introduction II. Consumer Preferences: A. Axioms of Rational Choice B. Utility Functions C. Level Curves of the Utility Function: Indifference Curves D. Slopes of Level Curves: Marginal Rate of Substitution
(2) 1/16	3.4, 4.3 Ch. 2 Math Handout: Sects. D, E	C1k. C2a A4	Thursday: In-class prerequisite calculus quiz III. Common Utility Functions: Cobb-Douglas, Perfect Complements (Leontief), Perfect Substitutes, CES IV. Budget Constraint V. Mathematical Review of Optimization
(3) 1/23	Ch. 5	C2	VI. Utility Maximization and Demand Functions
(4) 1/30	Ch. 6	C3 C4	VII. Comparative Statics of Demand A. Income changes B. Price changes MIDTERM 1: FRIDAY, Jan 27 from 7:30-9pm PETER 108
(5) 2/6	Ch 8	C5-C6	VII. Comparative Statics of Demand (continued) C. Compensated Price Changes D. Slutsky Equation E. Demand Relationships Among Goods F. Elasticity
(6) 2/13	Ch 14	C7	VIII. Compensating and Equivalent Variation, Consumer's Surplus
(7) 2/20	Ch 9.	C8	IX. Supply of Labor: The Labor-Leisure Decision MIDTERM 2: FRIDAY, Feb 24 from 7:30-9pm PETER 108
(8) 2/27	Ch 10	C9	X. Supply of Saving: Consumption-Savings Decision
(9) 3/6	Ch 12	C10	XI. Decision Making under Risk and Uncertainty
(10) 3/13			Wrap up and Review

Final Exam: Saturday, March 18 from 3-6:00pm