# **ECONOMICS 100A: MICROECONOMICS, Part A**

### Fall 2009

Professor:

James Andreoni <u>andreoni@ucsd.edu</u> Office: Economics 215

Office Hrs: Monday 1:00-2:00pm

Lectures, Discussion Sessions, and Teaching Assistants

## <u>LECTURE 1</u> TT 8:00- 9:20 SOLIS 104

| A01                               | F  | 10-10:50a | PETER 104 | Grad TA:<br>UG: | Bryan Tomlin<br>Jessica Huffman | btomlin@ucsd.edu<br>jhuffman@ucsd.edu |  |
|-----------------------------------|----|-----------|-----------|-----------------|---------------------------------|---------------------------------------|--|
| A02                               | Th | 7-7:50p   | PETER 104 | Grad TA:<br>UG: | Heea Jung<br>Julia Yao          | hej001@ucsd.edu<br>juyao@ucsd.edu     |  |
| LECTURE 2 TT 9:30-10:50 SOLIS 107 |    |           |           |                 |                                 |                                       |  |
| B01                               | F  | 3-3:50p   | WLH 2204  | Grad TA:        | Charles Sprenger                | csprenge@ucsd.edu                     |  |
|                                   |    |           |           | UG:             | Karina Litvak                   | klitvak@ucsd.edu                      |  |
| B02                               | Th | 8-8:50p   | CSB 100   | Grad TA:        | Gee, Laura                      | 11gee@ucsd.edu                        |  |
|                                   |    |           |           | UG:             | Shirely Wu                      | qiwu@ucsd.edu                         |  |
| B03                               | F  | 9-9:50a   | HSS 1330  | Grad TA:        | Charles Lin                     | chl083@ucsd.edua                      |  |
|                                   |    |           |           | UG:             | Clare Lyons                     | clyons@ucsd.edu                       |  |

Prerequisites: Econ 1 and either Math 10C, 20C, or 21C.

Assessment: There are two midterm exams given outside of class:.

- MIDTERM 1, October 20, 7:00-8:20pm
  - o Lecture 1 in Center 212
  - o Lecture 2 in Center 214
- MIDTERM 2, November 13, 6:00-7:20pm
  - o Lecture 1 in Center 105
  - o Lecture 2 in Center 109
- <u>FINAL EXAM</u>, as announced in course schedule.
- Each midterm exam is worth 30% of your grade.
- The final exam is cumulative and is worth 30% of your grade.
- Online homework will count 10% of your grade. See below on *Homework*.

Course Objectives: As the first of the microeconomic 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:

Perloff, Jeffrey M. (2007) *Microeconomics: Theory and Applications with Calculus*, Pearson/Addison-Wesley.

Machina, Mark (2006) "Math Handout" posted to the WebCT site

Additional Readings: There are many textbooks you can use to supplement Perloff. Other calculus-based intermediate textbooks include Walter Nicholson's, *Microeconomic Theory*, Hal R. Varian's, *Intermediate Microeconomics* and Binger and Hoffman's, *Microeconomics with Calculus*. You can get an e-book version of Varian's text for half price at <a href="https://www.nortonebooks.com">www.nortonebooks.com</a>

One free option is an online introductory textbook written by Preston McAfee of Caltech <a href="http://www.introecon.com/">http://www.introecon.com/</a>. The level of this book is between Econ 1 and Econ 100A. It is very interesting, free, and you may find it useful

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

WebCT: This is where you access the syllabus, class handouts, homework assignments, etc.

Weekly Homework: It is tremendously important that you keep up with the course, and that you practice solving economic problems. We give you two incentives for keeping up.

- 1. Online homework. Each week there will be online homework through Aplia. This will cost you \$28 to register for Aplia. Look for an announcement on WebCT for how to sign up to Aplia. This homework will be graded automatically by Aplia and reported to us.
- 2. Written homework. We will periodically also post homework assignments. During your discussion session (see below) the TAs will help you work on the homework assignment for that week. We will post the homework answer key one week after the problem set is assigned. 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.

Discussion Sessions: These sessions will be conducted by the TAs. <u>Please go to one the TA sections for you are registered for!!</u>

#### Administrative Issues:

- (1) If you have a documented disability, please bring your documentation and come to talk 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, Building 202 University Center as soon as possible. For information on the steps for academic accommodation, please see <a href="http://www-senate.ucsd.edu/manual/appendices/app3.htm">http://www-senate.ucsd.edu/manual/appendices/app3.htm</a>.
- (2) Any student found guilty of academic dishonesty will earn a failing grade for the course. In addition to this academic sanction that I will impose, the Council of Deans of Student Affairs will also impose a disciplinary penalty. For a review of UCSD policy, please see <a href="http://www-senate.ucsd.edu/manual/appendices/app2.htm">http://www-senate.ucsd.edu/manual/appendices/app2.htm</a>.
- (3) You will only need a pen or pencil for exams. Exams are closed book and you may not use notes. Exams are completely electronic-free: no calculators, headphones, cell phones, etc. are to be used during an exam.
- (4) 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.* Once a classmate has turned in his/her exam, you will earn a zero on the test if you arrive late.
- (5) If there is a mistake adding up the points on your exam, then bring it to my attention within one week of the exam being returned and I will correct it. If you believe an exam has not been graded properly, you may request a regrade within one week of the exam being returned. I will regrade your entire exam. The regarded score will be your grade for the exam. You may not ask for another regrade or go back to your first grade.
- (6) UCSD now has automated waitlists. If you have any questions regarding adding the class, please refer to Triton Link at <a href="https://tritonlink.ucsd.edu/portal/site/tritonlink-preview/menuitem.b4448692267a11256ec5e210514b01ca?storyID=17736%20">https://tritonlink.ucsd.edu/portal/site/tritonlink-preview/menuitem.b4448692267a11256ec5e210514b01ca?storyID=17736%20</a> or contact the undergraduate advisors in Sequoyah Hall 245. The economics department does not allow late additions (additions after the second week) to any class.

# **ECONOMICS 100A: MICROECONOMICS, Part A Schedule of Topics and Lectures.**

| Week         | Text, Math Handout  | Topic  |
|--------------|---|--|
| (0) 9/24     | Chapter 1, 2 (background)<br>Calculus Appendix, A.1-<br>A.3 | I. Introduction  |
| (1) 9/29     | Chapter 3: 60-74  | II. Consumer Preferences:  A. Axioms of Rational Choice B. Utility Functions C. Level curves of utility function: Indifference Curves D. Marginal Rate of Substitution  III. Common Utility Functions: Cobb-Douglas, Perfect |
| (2)<br>10/6  | 74-75 & Calculus<br>Appendix, A.4-A.6<br>Machina Handout    | Complements (Leontief), Perfect Substitutes, CES  IV. The Budget Constraint  V. Mathematical Review of Optimization  |
| (3)<br>10/13 | 75-89   | VI. Utility Maximization and Demand Functions  |
| (4)<br>10/20 | Chapter 4: 93-110   | Midterm 1: Tuesday, October 20 <sup>th</sup> , 7pm  VII. Comparative Statics of Demand A. Income changes B. Price changes (income and substitution effects)  |
| (5)<br>10/27 | Chapter 4: 111-126  | VII. Comparative Statics of Demand (continued) C. Compensated price changes and compensated demand functions. D. Slutsky Equation  |
| (6)<br>11/3  | Chapter 5, 130-152  | E. Demand Relationships among goods F. Measures of Consumer Welfare  |
| (7)<br>11/10 |   | F. Measures of Consumer Welfare (continued)  Midterm 2: Friday, November 13 <sup>th</sup> , 6pm  |
| (8)<br>11/17 | Chapter 5: 152-164  | Supply of Labor: The Labor-Leisure Decision  Supply of Saving: The Consumption-Savings Decision  |
| (9)<br>11/24 |   | The Effect of Unpaid Furloughs on Labor Supply  Thanksgiving Holiday   |
| (10)<br>12/1 | Chapter 16  | Decision Making under Risk and Uncertainty   |