### **ECONOMICS 100A: MICROECONOMICS, Fall 2017**

Section A00: Tuesday, Thursday 11:00-12:20pm, Center 101 Section B00: Tuesday, Thursday 12:30-1:50pm, Center 101

Instructor:

Dr. Melissa Famulari email: <a href="mailto:mfamulari@ucsd.edu">mfamulari@ucsd.edu</a>
Office Hours: Friday 9:00-noon (in Econ 221 and online through Zoom)

### *Graduate TAs:*

Daniel Acevski dacevski@ucsd.edu Zachary Goodman zgoodman@ucsd.edu Gregory Raiffa graiffa@ucsd.edu Jianan Yang jiy346@ucsd.edu dpellatt@ucsd.edu Daniel Pellat cnavajas@ucsd.edu Camila Navajas Ahumada isomers@ucsd.edu Jackson Somers vieevana@ucsd.edu Veena Jeevanandam Blume

Undergraduate TAs:

Yingxue Sun <u>yis125@ucsd.edu</u>
Jin (Peter) Yang <u>jiy228@ucsd.edu</u>

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

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 WI18 and in 100C in SP18. 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: Other calculus-based intermediate textbooks that you could use to supplement Varian include 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 <a href="http://www.introecon.com/">http://www.introecon.com/</a>.
- Mandatory Discussion Sessions: TAs 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.
- *TritonEd:* 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 6-9pm and Sunday 2-6pm but please check the web page for actual hours: <a href="http://economics.ucsd.edu/undergraduate-program/courses/pset-lab.html">http://economics.ucsd.edu/undergraduate-program/courses/pset-lab.html</a>)

*Piazza:* We will be using Piazza for class discussion. The system is designed to get you help quickly and efficiently from classmates, the TAs, 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: <a href="https://piazza.com/ucsd/fall2017/econ100a/home">https://piazza.com/ucsd/fall2017/econ100a/home</a>. NOTE: I will deduct 30 points if you misuse Piazza (alter an answer already marked as correct, ask and answer your own question, etc.)

Assessment: P	ID ends in an EVEN number Required Quizzes	PID ends in an ODD number Optional Quizzes
Top 5 of 6 online quizzes:	8%	0%
Prerequisite test (Thursday, Oct 5 in class	s) 1%	1%
Participation	1%	1%
Midterm 1 (Friday Oct. 20, 5-6:20pm)	20%	24%
Midterm 2 (Friday Nov. 17, 5-6:20pm)	20%	24%
Final Exam (Saturday Dec. 9, 11:30-2:30	50%	50%

**Note:** ALL students have the option to take the online quizzes but quiz scores only count towards the grade of the **Required Quizzes** group. Regardless of which group you are assigned to, your final letter grade will be unaffected (each group will have the same fraction of each final letter grade).

Effects of quizzes and the online video handbook on student performance: this class is providing important information to identify the effects of quizzes and the video handbook on student performance. Staff in the Teaching and Learning Commons at UC San Diego (TLC) will take the class grade data, video viewing data, and will combine it with admissions data (standardized test scores, high school GPA and demographic data), UCSD GPA before taking this class and grade in the next class. TLC staff will remove all personally identifying information, so we will not know any student's identity when we analyze the data. Researchers in the Deptartment of Economics will analyze the anonymized data more than one quarter after this class ends.

### Your Consent

If you consent to participate in this study, no action is needed. If you DO NOT consent to participate in this study, or you choose to opt-out at any time during the quarter, please submit this form online at <a href="https://goo.gl/forms/JSBRjEmkES6W6xYc2">https://goo.gl/forms/JSBRjEmkES6W6xYc2</a>. Your instructor will not have access to the list of students who opted out until after grades are posted. Note that you must separately opt-out of the study for each course involved in this study.

1 I am not 18 years or older or I do not consent to anonymized research use of my data from the course

specified below.	
Course name: Microeconomics, part A Course section number:	Term: <u>Fall 2017</u>
Name:	
DID.	

Quizzes: Quizzes are available online on Mondays and can be taken anytime between 4pm and midnight. Once you start the quiz you have one hour to complete it.

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. Quizzes: There will be 6 online quizzes (see below) and the top 5 count towards your final grade if your PID ends in an even number.
- 2. Written homework: 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 <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 material that you learned in Math 10ABC or 20ABC that are the most important for this course.

## Supplemental Instruction:

Conducted by Raees Shaik (<u>mshaiksa@ucsd.edu</u>) and Yue (Anastasia) Chu (<u>yuc011@ucsd.edu</u>)

#### Anastasia's Hours

Monday 12pm TLC 1503 Wednesday 12pm TLC 1503 Thursday 4pm TLC 1503

### Raees' Hours

Wednesday 1pm Raza Resource Center Friday. 3pm Raza Resource Center

Sunday. 4pm TLC 1503

### 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, the Council of Deans of Student Affairs will impose a disciplinary penalty.

### (3) EXAMS

- a. You must bring your UC San Diego 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. 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.
- d. There are no bathroom breaks during the midterm exams (but let me know immediately if this policy will create a hardship for you).
- e. 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.
- f. If you believe your midterm exam has not been graded properly, you may request a re-grade within one week of the exam being returned. If your TA agrees with you, you will earn the additional points. If your TA disagrees with you, you will lose one 1 point (out of the 1000 points for the course).

Week	Text, Math Handout	Video	Topic
	Ch.1	B1-3	I. Introduction
(1) 10/3	Math Handout: Sects. A, B, C Ch. 3.1, 3.2, 3.5 Ch. 4 intro, 4.1, 4.2 3.3 3.6	C1a- C1j A2	<ul> <li>II. Consumer Preferences:</li> <li>A. Axioms of Rational Choice</li> <li>B. Utility Functions</li> <li>C. Level Curves of the Utility Function: Indifference Curves</li> <li>D. Slopes of Level Curves: Marginal Rate of Substitution</li> <li>Thursday: In-class prerequisite calculus quiz</li> </ul>
	3.4, 4.3	C1k.	Quiz 1, Monday
(2) 10/10	Ch. 2 Math Handout: Sects. D, E	C2a A4	<ul><li>III. Common Utility Functions: Cobb-Douglas, Perfect Complements (Leontief), Perfect Substitutes, CES</li><li>IV. Budget Constraint</li><li>V. Mathematical Review of Optimization</li></ul>
(3) 10/17	Ch. 5	C2	Quiz 2, Monday  VI. Utility Maximization and Demand Functions  MIDTERM 1: FRIDAY, October 20 from 5-6:20pm
			WID TERM 1. TRIBATI, October 20 Hom 3 0.20pm
(4) 10/24	Ch. 6	C3 C4	VII. Comparative Statics of Demand A. Income changes B. Price changes
			Quiz 3, Monday
(5) 10/31	Ch 8	C5-C6	VII. Comparative Statics of Demand (continued) C. Compensated Price Changes D. Slutsky Equation E. Demand Relationships Among Goods F. Elasticity
			Quiz 4, Monday
(6) 11/7	Ch 14	C7	VIII. Compensating and Equivalent Variation, Consumer's Surplus
			Quiz 5, Monday
(7) 11/14	Ch 9.	C8	IX. Supply of Labor: The Labor-Leisure Decision  MIDTERM 2: FRIDAY, November 17 from 5-6:20pm
			WID LEAN 2. PRIDAT, November 17 from 5-0:20pm
(8) 11/21	Ch 10	CO	V. Cumber of Covings Consumption Covings Desiring
	Ch 12	C9 C10	X. Supply of Saving: Consumption-Savings Decision  Quiz 6, Monday
(9) 11/28			XI. Decision Making under Risk and Uncertainty
(10) 12/5			Wrap up and Review

## University of California, San Diego Consent to Act as a Research Subject

Investigating the Impact of Pedagogical Choices on University Student Learning and Engagement

# Who is conducting the study, why you have been asked to participate, how you were selected, and what is the approximate number of participants in the study?

Gabriele Wienhausen, Director of the Teaching and Learning Commons, together with her education research colleagues is conducting a research study to find out more about how pedagogical choices affect student learning and experience in the classroom. You have been asked to participate in this study because you are a student in a class that is being studied or used as a control. There will be approximately 500,000 participants in this study.

## Why is this study being done?

The purpose of this study is to create knowledge that has the potential to improve the learning and educational experience of students at UC San Diego and beyond.

# What will happen to you in this study and which procedures are standard of care and which are experimental?

If you agree to be in this study, the following will happen:

• Your data from this class including grades, homework and exam submissions, and survey responses will be included in the analysis to determine the effectiveness of the pedagogical techniques used in this course compared to other similar courses.

# How much time will each study procedure take, what is your total time commitment, and how long will the study last?

Your participation involves only agreeing to let us use your data in our analysis. It will require no time on your part above the time you put into this course without agreeing to the study.

## What risks are associated with this study?

Participation in this study may involve some added risks or discomforts. These include the following:

1. A potential for the loss of confidentiality. We will not share your personally identifying data with people outside our research team. Data will only be kept in anonymized form for research purposes. Course data will not used for this research study until after final grades have been posted and will be rendered confidential by removing any identifiers before analysis. Your instructor will not know whether or not you are participating in this study until after final grades have been posted. Data from students who opt out of the study will be removed prior to data analysis. Research records will be kept confidential to the extent allowed by law. Research records may be reviewed by the UCSD Institutional Review Board.

Since this is an investigational study, there may be some unknown risks that are currently unforeseeable. You will be informed of any significant new findings.

# What are the alternatives to participating in this study?

The alternatives to participation in this study are not to participate. If you choose to opt-out of participating in this research study, we will exclude your data from analysis. Whether you participate will have no impact on your experience or grade in the associated class as the professor will not know who is or is not participating in the study until after final grades are assigned.

### What benefits can be reasonably expected?

There is no direct benefit to you for participating in the study. The investigator, however, may learn more about how to improve student learning, and society may benefit from this knowledge.

## Can you choose to not participate or withdraw from the study without penalty or loss of benefits?

Participation in research is entirely voluntary. You may refuse to participate or withdraw or refuse to answer specific questions in an interview or on a questionnaire at any time without penalty or loss of benefits to which you are entitled. If you decide that you no longer wish to continue in this study before the end of the quarter, simply respond to the online opt-out form here:

https://goo.gl/forms/JSBRjEmkES6W6xYc2. If you decide to opt out after the quarter has ended, you must contact Ying Xiong (yix184@ucsd.edu) and give the quarter and the course from which you would like your data withdrawn.

You will be told if any important new information is found during the course of this study that may affect your wanting to continue.

### Can you be withdrawn from the study without your consent?

The PI may remove you from the study without your consent if the PI feels it is in your best interest or the best interest of the study. You may also be withdrawn from the study if you do not follow the instructions given you by the study personnel.

## Will you be compensated for participating in this study?

You will not be compensated for participating in this study.

## Are there any costs associated with participating in this study?

There will be no cost to you for participating in this study.

## Who can you call if you have questions?

Gabriele Wienhausen and/or her colleague has explained this study to you and answered your questions. If you have other questions or research-related problems, you may reach Gabriele Wienhausen at gwienhausen@ucsd.edu or (858) 534-3958.

You may call the Human Research Protections Program Office at 858-246-HRPP (858-246-4777) to inquire about your rights as a research subject or to report research-related problems.

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for each course involved in t	2 1	t you must separately opt-out of the study
[] I am not 18 years or older specified below.	r or I do not consent to anonymize	ed research use of my data from the course
Course name:	Course section number:	Term:
Name:		
PID:		