#### **ECONOMICS 100A: MICROECONOMICS, Winter 2018**

Section A00: Tuesday, Thursday 2:00-3:20pm, Solis 107 Section B00: Tuesday, Thursday 3:20-4:50pm, Solis 107

Instructor: Dr. Melissa Famulari email: mfamulari@ucsd.edu

Office Hours: Wednesday 10:30am-1:30pm in Econ 221 and online through Zoom.

Graduate TAs: Daniel Acevski dacevski@ucsd.edu

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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 http://www.introecon.com/.
- 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.
- Intermediate Microeconomics Video Handbook (IMVH): 220 short(ish) videos that cover the entire 100ABC sequence. Link is available on TritonEd. The IMVH opens in a popup window, so be sure your browser allows popups. If you are having a technical problem with the IMVH, please e-mail <a href="mailto:edtech@ucsd.edu">edtech@ucsd.edu</a>.
- *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 are most useful.

Supplemental Instruction: Supplemental Instruction begins on Wednesday January 10th. Students do not need to register for these sessions as they are open to all students. They are conducted by Raees Shaik (<a href="mailto:mshaiksa@ucsd.edu">mshaiksa@ucsd.edu</a>) and Anastasia Chu (<a href="mailto:yuc011@ucsd.edu">yuc011@ucsd.edu</a>) on the following dates and times:

Raees SI Sessions:	Monday	2-2:50pm	Center 316
	Tuesday	5-5:50pm	Center 316
	Sunday	2-2:50pm	Center 316
Anastasia SI Sessions:	Monday	4-4:50pm	TLC 1504
	Wednesday	1-1:50pm	Center 316
	Friday	11-11:50am	Center 316

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 4-8pm 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 the Piazza for class discussion. Piazza is designed to get you help quickly and efficiently from classmates, the TAs, and myself. Our class page is Find our class page at: https://piazza.com/ucsd/winter2018/econ100a/home

Assessment:	ID ends in an ODD number	PID ends in an EVEN number
	(1,3,5,7,9)	(0,2,4,6,8)
	Required Quizzes	Optional Quizzes
Top 5 of 6 online quizzes:	8%	0%
Prerequisite test (Thursday, January 11 in	class) 1%	1%
Participation	1%	1%
Midterm 1 (Friday January 26, 7-8:20pm)	20%	24%
Midterm 2 (Friday February 23, 7-8:20pm	n) 20%	24%
Final Exam (Saturday March 17, 3:00-6:0	00) 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 Department 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.

[] I am not 18 years	or older or I do r	not consent to	anonymized	l research u	se of my d	lata from the	e course
specified below.							

Course name: Microeconomics, part A	Course Section Number:	Term:	Winter 2018
Name:			
PID:			

- 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 odd 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.
- *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. You have one attempt to take the quiz. You may use class notes, the textbook and the Intermediate Micro Videos while taking quizzes, but no other resource.
- Attendance: I will check attendance several times throughout the quarter by having you take an in-class survey through TritonEd. For those of you using mobile phones, download the Blackboard mobile app. Once you download the app, put in TritonEd and that will bring up your classes.
- 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 this opportunity.

#### Administrative Issues:

- (1) Students requesting accommodations for this course due to a disability must provide a <u>current</u> Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (OSD) which is located in University Center 202 behind Center Hall. Students are required to present their AFA letters to Faculty (please make arrangements to contact me privately) and to the OSD Liaison in the department <u>in advance</u> so that accommodations may be arranged. Contact the OSD for further information: 858.534.4382 or osd@ucsd.edu
- (2) 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 pens/pencils 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. Please let me know immediately if this policy will create a hardship for you.
  - e. Regrade Policy. I definitely want the TAs to correct all grading mistakes. However, since each regrade request takes TA time, I want to limit unwarranted requests for regrades.
    - i. Midterms: You may request a re-grade within one week of the exam being returned. If your TA agrees, you will earn the additional points. You will lose 1 point if the TA disagrees.
    - ii. Final exam: By the final exam, the TAs and I are on the same page when it comes to grading and so grading errors are much less common. You will lose 10 points if the TA disagrees.

Week	Text, Math Handout	Video	Topic
	Ch.1 Math Handout: Sects. A, B, C	B1-3	I. Introduction
(1) 1/8	Ch. 3.1, 3.2, 3.5 Ch. 4 intro, 4.1, 4.2 3.3	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> </ul>
		~	Thursday: In-class prerequisite calculus quiz
	3.4, 4.3	C1k.	Quiz 1, Monday
(2) 1/15	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>
		G2	Quiz 2, Monday
(3) 1/22	Ch. 5	C2	VI. Utility Maximization and Demand Functions
(3) 1/22			MIDTERM 1: FRIDAY, January 26 from 7-8:20pm
(4) 1/29	Ch. 6	C3 C4	VII. Comparative Statics of Demand A. Income changes B. Price changes
			Quiz 3, Monday
(5) 2/5	Ch 8	C5-C6	VII. Comparative Statics of Demand (continued) C. Compensated Price Changes D. Slutsky Equation E. Demand Relationships Among Goods F. Elasticity
	Cl. 14	C7	Quiz 4, Monday
(6) 2/12	Ch 14	C7	VIII. Compensating and Equivalent Variation, Consumer's Surplus
			Quiz 5, Monday
(7) 2/19	Ch 9.	C8	IX. Supply of Labor: The Labor-Leisure Decision
			MIDTERM 2: FRIDAY, February 23, from 7-8:20pm
(8) 2/26	Ch 10	C9	X. Supply of Saving: Consumption-Savings Decision
(0) 2/5	Ch 12	C10	Quiz 6, Monday
(9) 3/5			XI. Decision Making under Risk and Uncertainty
(10) 3/12			Wrap up and Review

Final Exam: Saturday, March 17 from 3:00-6:00pm

## 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 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: <a href="https://goo.gl/forms/JSBRjEmkES6W6xYc2">https://goo.gl/forms/JSBRjEmkES6W6xYc2</a>. 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

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 <a href="mailto:gwienhausen@ucsd.edu">gwienhausen@ucsd.edu</a> 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.

#### 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.

at <u>intps://goo.gr/</u>		LINKLOUW OATCZ. TOUT INSUIGEOT WITH IN	t have access to the list of
students who opt	ed out until a	after grades are posted. Note that you must	separately opt-out of the study
for each course in	nvolved in th	is study.	
[] I am not 18 yespecified below.		or I do not consent to anonymized research	use of my data from the course
Course name:	Econ 100A	Course Section Number:	Term: Winter 2018
Name:			
PID:			