



**DEPARTMENT OF ECONOMICS
ECON 100C (A00 & B00): INTERMEDIATE MICROECONOMIC THEORY III**

**LOCATION: PCYNH 109
TIMES: TUESDAYS & THURSDAYS, 5:00PM-6:20PM (A00) & 6:30-7:50PM (B00)**

**SPRING QUARTER 2017
SYLLABUS**

Instructor: Steve Levkoff, PhD, CAP[®]

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Course Webpage: <http://ted.ucsd.edu>

Office: Economics Building, Room 112

Office Hours: T/Th, 2:15-3:15pm, open door, and by appointment

Course Description: This course is a continuation of ECON 100A and ECON 100B in the intermediate microeconomic theory sequence. Emphasis will be placed on the analysis of market imperfections. Topics include market power, monopoly pricing, oligopolies, game theory, externalities & public goods, information economics.

Prerequisites: In order to be enrolled in this course, you should have satisfactorily completed ECON 100B or ECON 170B, ECON 100A or ECON 170A, and ECON 1. Also, you should have taken some course in multivariate calculus or optimization (MATH 10C, MATH 20C, or MATH 21C) and be comfortable with basic integration and differentiation. Supplemental review materials for the mathematics required will be provided on TED and in the readings below.

Readings:

Required:

- [1] Intermediate Microeconomics with Calculus: A Modern Approach, Hal R. Varian, 1st Edition. The UCSD custom edition can be purchased at the bookstore and can also be found on reserve at the library, but you should already have this text from earlier parts of the ECON 100 sequence.
- [2] Microeconomics: Theory and Applications with Calculus, Jeffrey M. Perloff, 3rd Edition (any edition will suffice).

- [3] Introduction to Economic Analysis, by Preston McAfee. This text is free online at <http://www.mcafee.cc/Introecon/IEA.pdf>. Good text to supplement with lecture material. (Did I mention free?)
- [4] *Industrial Organization: A Strategic Approach* by Church and Ware. This book can be found online for free at http://works.bepress.com/cgi/viewcontent.cgi?article=1022&context=jeffrey_church.
- [5] *Law's Order*, by David Friedman, Princeton University Press. Can be found online for free at http://www.daviddfriedman.com/laws_order/index.shtml.
- [6] Martin Osborne's Intermediate Mathematics Tutorial: <http://www.economics.utoronto.ca/osborne/MathTutorial/index.html>. This is suggested if you feel that your mathematics are "rusty."
- [7] Mark Machina's ECON 100A Mathematics Handout (on TED). This handout is a mathematical survival guide to optimization in intermediate microeconomic theory.
- [8] Additional supplemental slides & readings found online (TED)
- [9] *Micoeconomics: An Intuitive Approach With Calculus*, by Thomas J. Nechyba

Discussion Sections:

Section A01/B02: CSB 001, Wednesdays, 7:00pm-7:50pm / 8:00pm-8:50pm

Section B01/B02: CSB 002, Wednesdays, 8:00pm-8:50pm / 9:00pm-9:50pm

Head TA: David Coyne (dcoyne@ucsd.edu)

Teaching Assistants: Jiajun Lu (jil465@ucsd.edu), Shunning (Stephanie) Mao (shm021@ucsd.edu), Yann Panaïsse (yannp@ucsd.edu), Ji Wen (jiw276@ucsd.edu)

PSET Lab: Learn to solve problems on you own! The Economics Department is making a problem solving and tutoring center available to all students in intermediate microeconomics (100ABC) on M-TH evenings and on the weekend in ECON 200. (Specific hours for PSET will be posted on the Department web page and on TED for this course). The ability to apply the concepts from class to solve problems is the most important skill we want you master in our core classes. PSET is designed to help you learn to tackle problems successfully by having grad and undergrad TAs there to help you think through a problem—right when you get stuck. If you struggle to tackle your homework, we believe that PSET will be an efficient and effective way for you to learn how to think like an economist. Note that ALL Graduate TA office hours will be held in

the PSET lab in ECON 200. We hope to offer PSET on Mondays through Thursdays from 5:30-9:30pm and Sundays from 2-6pm - but please check the web page for actual hours: <http://economics.ucsd.edu/undergraduate-program/courses/pset-lab.html>)

Homework: While not a formal part of the course grade, problem sets will play a crucial role in developing your problem solving skills and should be taken *very seriously*. In the past, it has often been the case (and is no secret if you look at my course evaluations online) that students putting the most effort into the problem sets tend to perform best on the exams because *the problem sets tend to be much more difficult than exams*. Problem sets will be assigned regularly via TED. You are encouraged to work together to solve problem sets and to email the TAs.

MobLab Games Exercises: An important part of understanding economic theory is seeing where it works in practice and where it doesn't. In the latter case, it is imperative to understand what assumptions may be driving the result from what is expected. Accordingly, throughout the course, you will have the opportunity to participate in several in and out-of-class activities that will allow us to put some of the theories discussed in class to the test, generating real data for analysis through the MobLab Games online infrastructure. You will be able to log in and participate using your computer or mobile device (Android and iOS friendly). The exercises will take place both in and out of class, with some activities being unannounced (so it is your responsibility to be there if you want extra credit!) While optional, participation in these exercises will be compensated with extra credit to contribute to your course grade. Over the course of the first week of class, you will be emailed an invitation to join MobLab with an access code. There is a \$10 fee to access the online course (think of this as in place of the more expensive "clicker" that can also be used out of class – also, you won't need to purchase blue books or anything like that for the course, so this request shouldn't be an unreasonable one). The access code for joining the online MobLab course is di84mgeu (see the student guide posted to TED for instructions on enrolling). *WHEN YOU REGISTER YOUR ACCOUNT AND JOIN THE COURSE, MAKE SURE YOU USE YOUR FULL NAME AS IT SHOWS ON YOUR TED COURSE ACCOUNT (OR AS CLOSELY AS POSSIBLE GIVEN THE CHARACTER RESTRICTIONS ON MOBLAB).*

TED Access (course webpage): It is your responsibility to make sure you are enrolled in the online course (TED) and to routinely check it and your email for announcements and to access newly distributed material. You can email ITS@ucsd.edu to get TED access for the course if you have added late. CC the instructor of the course (slevkoff@ucsd.edu) in the email to expedite approval.

Examinations: There will be two cumulative midterm exams – the first to be administered in the 4th week of class and the second in the 8th week of class (see tentative schedule below). There is also a final examination scheduled by the registrar - you can view the official final exam schedule at the registrar's website: <https://act.ucsd.edu/scheduleOfClasses/scheduleOfClassesStudent.htm>. Please

monitor this routinely for any schedule changes. All exams are cumulative (but not necessarily uniformly so).

Grading:	Participation (ie: MobLabs)	BONUS
	Midterm Exam 1	25%
	Midterm Exam 2	35%
	<u>Final Exam</u>	<u>40%</u>
	Total	100%

The course is graded on a relative curve (as is any college course). In particular, students will all be ranked from highest to lowest course score according to your final course grade calculated from the raw exam score weighting above. Letter grade assignments will depend on your percentile ranking in the class and a subjective assessment by the instructor in borderline cases (say, if there was marked improvement).

In the past, a student could typically guarantee themselves an A by ranking in the top 25% of students in the course and a B by ranking in the top 60%.

Some students feel that the grading scheme is risky in the sense that you have only 3 opportunities to prove yourself, so I will add the following “buffer” because I understand that sometimes people may have a bad midterm exam sitting: Since the final exam is cumulative, if you score a solid A on the final exam, (and ONLY a solid A), I will give you an A in the course and disregard your midterm grades (provided you’ve taken ALL of the midterms). I reserve the right to revoke this policy at any time for any reason.

Midterm Exam Re-grade Policy: It should be known that there may be some questions on the exams that have no right or wrong answer, so how credit is awarded depends crucially on *how* you defended your answer. Accordingly, there is a *BIG* difference between an answer being a *technically correct answer* and an answer being *the best answer*. In these cases, credit is awarded (according to the grading rubric) for how close your answer comes to being the *best answer*. That is, an answer, while being technically correct, may not necessarily have been the best answer and hence, wouldn’t necessarily receive full credit despite technical correctness.

After your exams are graded, your TA’s will allow you to see your exam in either discussion or their office hours. If you find that there was a minor grading issue (ie: points were added up incorrectly), let us know and we will remunerate accordingly. If there is a major issue (ie: you don’t think points were awarded correctly according to the grading rubric), DO NOT remove the exam from the TA’s possession – leave it with your TA with a note on the front cover regarding the specifics of the re-grade request.

If your request for a re-grade is granted, the ENTIRE exam will be regarded (not just the part in question) and this could possibly result in higher OR lower scores. *Once you take the exam from the TA’s possession, it can no longer qualify for a re-grade.* You have one week from the announcement of the grade distribution to resolve grading issues. Otherwise, grades are NON-NEGOTIABLE and any requests that are determined

to be *excessive* in scope may warrant further point deductions unless sound arguments are used to justify the request. The instructor and TAs reserve the right to refuse any request believed to be *excessive*.

Absences & Attendance: Any exam or quiz missed for a *legitimate, university approved* reason may be made up at the discretion of the instructor (this may include an oral evaluation as an alternative to taking a written exam or a re-weighting of the exams in the grade calculation shown above). You will receive a zero on any exam or quiz missed without a legitimate reason.

Supplemental Material & Slides: Throughout the course, the instructor may post supplemental readings and slides via TED. These materials are meant to be used in addition to the lecture and are not to be used as a substitute for going to lecture or reading the textbook. The instructor reserves the right to remove access to this material if he feels that it has adversely affected attendance in the lecture.

Classroom Decorum & Email: To avoid distracting others in the classroom, please arrive on time and do not leave early unless given prior permission. When class is in session, please respect others in the room and refrain from sending or receiving phone calls, pages, or text messages. Please be sure audible signals are turned off before class begins. Please restrict the use of email to the minimally necessary volume and put your full name at the end of email messages and the course name and number in the subject heading. Email questions regarding *how to do a particular homework problem* should be first directed to your TAs. If you can't make it to office hours, you can also email specific homework questions to your TAs who will respond to your query. Questions regarding course policies will be directed to the syllabus (if applicable). All other general questions are welcome!

Statement of Academic Integrity: Integrity of scholarship is essential for an academic community. The University expects that both faculty and students will honor this principle and in so doing protect the validity of University intellectual work. For students, this means that all academic work will be done by the individual to whom it is assigned, without unauthorized aid of any kind.

Examination Policies: Consistent with the University's mission to preserve academic integrity, there are several policies and procedures that must be adhered to by students during exams.

- 1) In order to be allowed into the exam, students must have:
 - A BLUE or BLACK PEN (NO PENCILS!!! If you use pencil, you forfeit your chance for a re-grade.)
 - A BASIC or SCIENTIFIC calculator (no graphing calculators, cell phones, or other mobile devices unless given prior approval by the instructor)
 - Your UCSD student ID
- 2) During the exam, the following policies will be enforced:

- Your seat will be randomized for each exam. When you enter the lecture on exam day, find your name and assigned seat number on the projector and quickly and quietly sit. Once everyone is seated, the exam will be handed out.
 - NO BATHROOM BREAKS (for exams <1.5 hours). Be sure to use the restrooms before the exam begins. Exams are less than an hour and a half long! You can make it!!! For longer exams, bathroom breaks will only be allowed (one at a time) during the first half of the exam duration.
 - No hats, hoodies, or sunglasses during the exam.
 - Turn cell phones off during the exam and leave them in your bag.
- 3) Violations of academic integrity will not be tolerated. For this course in particular, violations include, but are not limited to anything that may be perceived as the following actions:
- looking at or copying from other students' exams
 - writing answers after time has been called
 - talking during an exam while exams are still out
 - looking at notes during an exam
 - taking the wrong version of an exam
 - removing an exam from the examination room
 - removing pages from an exam
 - falsifying identification or an exam book during or after the exam
 - sitting in the wrong seat during an exam (if applicable)
 - using an unapproved device/item during an exam (ie: programmable calculator, cell phone, etc. - see above list)

Violation (or perceived violation) of any of the abovementioned policies will be enforced via zero tolerance and referred to the student conduct process, so don't do anything that would even come close to something that an observer would potentially interpret as academic dishonesty. NO EXCEPTIONS.

Tentative Schedule of Topics (Subject to Change):

Week Of	Tuesday	Thursday	Discussion	Special	Readings
4/3	Introduction / Syllabus / Review of Efficiency / Equity	Characterizing the Perfectly Competitive – Monopoly Spectrum	Review Practice PS#1: Price Controls and Efficiency in Perfectly Competitive Markets		[1]: 14-16, 20 [2]: 2.6, 2.7, 5.1, 5.3, 5.4, 9.2, 10 [3]: 6.1,6.2 [4]: 2.1-2.3

					[5]: 2 [6], [7], [8] [9]: 10, 18, 19
4/10	1 st & 2 nd Order Conditions for Profit Maximization / Competitive Supply	Uniform Pricing Monopoly / Efficiency and Equity Implications / Market Power / Lerner Index	PS#2: The Perfectly Competitive – Monopoly Market Spectrum		[1]: 20, 23-25 [2]: 8, 9, 11 [3]: 6.5.1- 6.5.3 [4]: 2.4- 2.7, 3, 12 [9]: 11, 13, 23
4/17	Perfect Price Discrimination / 3 rd Degree Market Segmentation	Nonlinear Pricing I: Quantity Discounts	PS#3: Monopoly & Pricing Strategies	TA Review Session (TBD)	[1]: 25-26 [2]: 12 [3]: 6.5.4- 6.5.8 [4]: 4-6 [9]: 23
4/24	Nonlinear Pricing II: Two part tariffs / multiple market segments / identification constraints	Midterm Exam #1	Midterm Review		[1]: 26 [2]: 13 [3]: 7.1.1- 7.1.4 [4]: 7 [5]: 8 [9]: 24
5/1	Intro. to Game Theory / Static Games / Dominance / Nash Equilibrium / Mixing	Nash Equilibrium / Mixing	PS#4: Intro to Game Theory: Static & Dynamic Games		[1]: 29 [2]: 13, 15.4 [3]: 7.1.5- 7.1.8 [4]: 9 [9]: 24
5/8	Dynamic Games / Sequential / Subgame Perfect Nash	Linear Demand Model / Cournot Duopoly			[1]: 30, 28 [2]: 14 [3]: 7.2,

	Equilibrium	(static) vs Monopoly & PC solutions / Cartel Solution / N-firms s			7.4, 7.6 [4]: 8, 11 [8]: Videos on Repeated Games [9]: 25, 26
5/15	Bertrand Price Competition (homogeneous product) / Bertrand Paradox / Differentiated Product Models	Dynamic Oligopoly / Stackelberg / Price vs. Quantity Competition / Collusion & Repeated Oligopoly / Infinite Horizon Games and the Folk Theorem	PS#5: Continuous Games and Oligopoly	TA Review Session (TBD)	[1]: 28 [2]: 14 [3]: 7.7, 6.3.1-6.3.3 [4]: 10, V [5]: 11, 16, 3 [9]: 26 [8]: watch videos on repeated games
5/22	Intro. to Externalities / Pigouvian Solution / Partial and GE Frameworks	Midterm Exam #2	Midterm Review		[1]: 35-36 [2]: 17.1-17.5 [3]: 6.3.4-6.3.6, 6.4 [5]: 4-5 [8]: Ronald Coase "The Problem of Social Cost" (on TED) [9]: 21, 27
5/29	Coase Theorem, Property Rights, and Bargaining	Intro. to Externalities / Pigouvian	PS#7: Externalities & Pub. Goods		[1]: 37 [2]: 17.6-17.7, 16,

		Solution / Partial and GE Frameworks			18 [3]: 6.6 [5]: 6-7 [9]: 22
6/5	Coase Theorem, Property Rights, and Bargaining	Asymmetric Info. /Adverse Selection & Moral Hazard / Signaling / Screening / Principal – Agent Problem / Optimal Contracts	Review / PS#8?: Asymmetric Information	Final Exam Review Session (TBD)	[1]: 38 [2]: 19 [3]: 6.6 [5]: 6-7 [9]: 22
6/13 6/15	FINAL EXAMS Tuesday, June 13th, 2017 7-10pm, LOCATION TBD (B00) Thursday, June 15th, 2017 7-10pm, LOCATION TBD (A00)				