UNIVERSITY OF CALIFORNIA, SAN DIEGO

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DEPARTMENT OF ECONOMICS
ECON 100A: MICROECONOMIC THEORY I

LOCATION: PETER 108
TIME: TUESDAYS & THURSDAYS, 5:00PM-6:20PM

WINTER QUARTER 2020
SYLLABUS

Instructor: Dr. Steve Levkoff, PhD, CAP®
E-mail: slevkoff@ucsd.edu
Instructor Webpage: http://stevelevkoff.com
Course Webpage: http://canvas.ucsd.edu
Office: Economics Building, Room 112
Office Hours: T/Th 3:50am-4:50pm, open door, and by appointment

Course Description: This is the first course in the intermediate microeconomic theory sequence and covers the topic of consumer theory – explaining how households determine the demand for goods and services given the constraints of the economic environment. Topics include (but are not necessarily limited to) optimization, utility maximization, expenditure minimization, welfare analysis, inter-temporal choice, labor supply decisions, and choice under uncertainty.

Prerequisites: In order to be enrolled in this course, you should have satisfactorily completed ECON 1 AND one of the following MATH courses: 10C, 20C, or 31BH. You should have some exposure to multivariate calculus and optimization and be comfortable with basic integration (single variable) and differentiation (multiple variables). Supplemental review materials for the mathematics required will be provided on Canvas and in the readings below.

Readings:

Required:

- [1] The standard textbook prescribed by the department is Perloff's *Microeconomics: Theory and Application with Calculus* – Your digital course materials are provided by the UC San Diego Bookstore through Canvas using the RedShelf link in the modules section. The e-book is free for the first two weeks of classes.

After two weeks, your student account will be charged a special reduced price (only $47) unless you opt-out. If you decide to opt-out, you must complete the process by 1/18/2020 (the add/drop deadline) and you will be responsible for sourcing the materials elsewhere.

- [2] Mark Machina's ECON 100A Mathematics Handout (on Canvas). This handout is a mathematical survival guide to optimization in intermediate microeconomic theory.
- [3] Intermediate Microeconomics Video Handbook (IMVH). Selected videos will be relevant to the course and announced via Canvas. Please use these to your advantage.

Recommended:

- [3] 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." It is a free to use resource.
- [4] Introduction to Economic Analysis, by Preston McAfee. This text is free online at http://introecon.com. Good text to supplement with lecture material. (Did I mention free?)
- [5] Intermediate Microeconomics with Calculus: A Modern Approach, Hal R. Varian, 1st Edition. Another excellent standard textbook that has been used for the 100 series in the past.
- [6] *Micoeconomics: An Intuitive Approach With Calculus*, by Thomas J. Nechyba. Good multivariate treatment in the three variable case with visualizations. Also was used for the 100 series in the past.

Discussion Sections:

Sections A01 & A02: Mondays, 6:00PM-7PM & 7PM-8PM / PCYNH 122
Sections A03 & A04: Wednesdays, 7PM-8PM & 8PM-9PM / MANDE B-210 122

Teaching Assistants: Zhiyun Jiang (zhj062@ucsd.edu), Frederick Papazyan (fpapazya@ucsd.edu), Yanying Sheng (yas107@ucsd.edu), & Sameem Siddiqui (sisiddiq@ucsd.edu)

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 Canvas – detailed solutions will be provided.

You are encouraged to work together to solve problem sets and to meet with / email the TAs in the event you have any questions.

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

Examinations: There are three exams – two (cumulative) midterms held in lecture on 1/30/20 and 2/27/20 and a cumulative final examination scheduled by the registrar on 3/19/20 from 7:00pm-10:00pm. You can view the official final exam schedule at the registrar's page at https://act.ucsd.edu/scheduleOfClasses/scheduleOfClassesStudent.htm. Please monitor this routinely for any schedule changes. All exams are cumulative (but not necessarily uniformly so) in that they build on prerequisite material. Emphasis will be placed on testing students on material that hasn't been tested yet, so focus your studying on newer concepts.

Quizzes: There will be online quizzes (out of class) via Canvas on Sunday of each week to help review the material from the previous week. Quiz questions will be exam style questions and will also function to prepare you for the exams. You will have one hour to complete each quiz once you have started it and will not be able to move onto the next question until completing the previous one. You will also not be able to revise your answers once you submit a question, so choose wisely. The quiz will be available between 4pm and Midnight on Sunday of each week.

Grading:		
	Quizzes	10%
	Midterm Exam 1	20%
	Midterm Exam 2	30%
	Final Exam	40%
	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 some type of A by ranking in the top 25% of students in the course and some type of 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, we will release your graded exams on *gradescope* so you can view a .pdf of your graded exam. If you find that there was a minor grading issue (ie: points were <u>added up</u> incorrectly), let us know and we will remunerate accordingly. If there is a major issue (ie: you don't think points were <u>awarded</u> correctly according to the grading rubric), submit a re-grade request – be advised that in the event your request is rejected, the TA's have authority to deduct an additional penalty for asking for a regrade (only in the case where the request is denied or viewed as excessive).

You have <u>one week</u> 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. The instructor reserves the right to take attendance and give pop quizzes to be used in the determination of the course grade.

Supplemental Material & Slides: Throughout the course, the instructor may post supplemental readings and slides via Canvas. 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.

- Smart watches or wearable computing / mobile devices are not permitted during the exam and should be put away
- Violations of any of the above will result in an immediate zero for the exam and possible escalation to the office of academic integrity for review which could result in your dismissal or suspension from the university. 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, will result in an automatic zero on the exam in question, and may be referred to the student conduct process through the AIO office, 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	Tuesday	Thursday	Discussion	Special	Reading
1	Syllabus & Policies / Intro to Consumer Theory / Axiomatic Approach to Consumer Choice	A two-good model of consumer choice / the Budget Constraint / Price and Income Changes	NO DISCUSSION	Quiz: Calculus Prerequisites	TBA
2	Utility Functions, Level Sets, & Indifference Curves	Properties of Utility Functions / Marginal Rate of Substitution / Common forms of Utility Functions	PS1	Quiz: Utility Functions & Preferences	TBA

3	Budget Constrained Utility Maximization Problem (UMP) / Graphical Solution & Intuition / Interpretation of Tangency Condition	Revisiting the Constrained UMP / Incorporating the Lagrangian / Interpreting the Lagrange Multiplier / Gradient Vectors	PS2	Quiz: Utility Maximization & Constrained Optimization	TBA
4	Deriving the optimal Marshallian Demand bundle / Income Changes / Price Changed & Derived Demand	**Midterm Exam 1**	TA Exam Review in Wednesday's Discussion (pooled discussion sections)	No quiz for this week's material	TBA
5	Comparative Statics / Decomposing the Price Effect into Substitution and Income Effects / Slutsky Equation / Giffen Goods	The Indirect Utility Function / Properties of the Indirect Utility Function / Roy's Identity	PS3	Quiz: Comparative Statics & Indirect Utility	TBA
6	Quantitative Demand Analysis / Elasticity of Demand / Income Elasticity / Cross-Price Elasticity	Uncompensated vs. Compensated Price Changes / Expenditure Minimization Problem (EMP) / Deriving Hicksian Demand	PS4	Quiz: Quantitative Demand Analysis & Elasticity	TBA
7	Duality / The EMP and the Expenditure Function / Shephard's	Relationship between UMP and EMP	PS5	Quiz: The Expenditure Minimization Problem	TBA

	Lemma & the Envelope Theorem				
8	Welfare Measures / Compensating Variation / Equivalent Variation / Relationship to Consumer Surplus	**Midterm Exam 2**	TA Exam Review in Wednesday's Discussion (pooled discussion sections)	No quiz for this week's material	TBA
9	The Labor-Leisure Choice Problem / Deriving the Optimal Labor Supply / Leisure as a Giffen Good	The Problem of Inter-temporal Choice / Discounting and Present Values / A two-period model	PS6	Quiz: Labor-Leisure Choice & Inter-temporal Choice	TBA
10	Choice Under Uncertainty / Fair Gambles / Risk Aversion	Utility of Wealth / Risk Averse / Risk Loving / Risk Neutral Behavior	PS7	Quiz: Choice Under Uncertainty	TBA
FINAL EXAM	**3/19/20 from 7-10PM**				