ECON 100A: Intermediate Microeconomics

Spring 2021
UCSD/ Zoom

Disclaimer

Various aspects of remote instruction are ***still* new or changing**, so it is possible some components of the class will change.

We will do our best to avoid or minimize such changes, and will post clear announcements if they happen, as well as the reasons behind them.

Teaching Team & contact info

Instructor: Oana Tocoian (UCSD PhD, 2011; Caltech BS, 2003)
- Office hours: Friday at 5pm
- Email **Econ100ATocoian@gmail.com** with any class-related questions.
   (Check the Discord discussion board first/ ask there if it is not urgent)
- Email otocoian@ucsd.edu for non-class-related matters or after the end of the quarter.
- Do NOT use Canvas for email.

Teaching Assistants
- Office hours: weekly on Tuesday 5-7pm, Monday TBA, and extra office hours before exams
- Email **Econ100ATocoian@gmail.com**

- Yu-Chang Chen   TA
- Zhiyun Jiang   TA
- Adrian Wolanski   TA
- Steven Yee   TA
- Jianan Yang   TA
- Xinhang Zhang   UIA
- Jordi Martinez Munoz   Reader
- Yibin Liu   Reader

Study Group leader: Yuki Hata (yhata@ucsd.edu)

About the course

- This is the first of the Econ 100 A-B-C sequence. Broadly speaking:
  - **Econ 100A** (this class) will model **consumer behavior**, from consumer preferences to building market demand functions, to solving for the supply of labor and of savings
  - Econ 100B will model firm behavior and perfectly competitive markets
  - Econ 100C will cover departures from the neoclassical model including imperfect competition, strategy, asymmetric information, and signaling

- Prerequisites:
  - you need to have taken Econ 1 and one year of calculus (Math 10C, 20C, or 21C).

- What this class is like
  - While you don't need advanced calculus, this class is mathematically intensive.
  - You should expect to work hard and not get perfect scores.
  - It is likely that you will be time-constrained on exams and may not finish all the problems.
  - Use exams to demonstrate how you can solve and reason through problems – no credit is given for correct final answers that fail to show a correct path to obtaining those answers.

Language prerequisite

College-level reading and writing skills are required. In particularly, the ability to:

- read and comprehend a college-level textbook.
- read and comprehend articles from newspapers and magazines.
- write clearly and coherently (even if not with perfect grammar or spelling) in English.
- understand spoken English.

- The lectures are recorded so that students in different time zones can watch asynchronously. Also, students who are not yet fluent in English or who are struggling to understand my accent may replay my lectures if they didn't understand something I said.
  - Note: the transcript is automatically-generated and so may have mistakes. If you are confused by a segment in a lecture and the transcript is not helping, let us know.
  - I encourage you to ask about vocabulary you do not understand.
  - Avoid using a dictionary/translator during exams. If you do so, you need to document what word or phrase you looked up in the space at the end of the exam, and you may be penalized if it is something we learned in class.

Textbook

- Textbook: *Intermediate Microeconomics with Calculus: A Modern Approach: Media Update 1st Edition* by Varian

  – Online access is available for free for the first two weeks of classes. If you don't opt out by April 10th, your student account will be charged $47. (for questions: textbooks@ucsd.edu)

  – This textbook is also used for Econ 100B and 100C, and access lasts for 360 days.

  – I strongly recommend buying the textbook (make sure it is the "with calculus" edition), but you *don't need online access*.

- Additional resources are linked on the Canvas page (see next slide)

  https://canvas.ucsd.edu/courses/26699

Additional study resources

- The Intermediate Microeconomics Video Handbook (**IMVH**) is a set of video lectures recorded by Professors at UCSD.
  - I will assign some of these for you to watch each week, and *may* set some mini-quizzes to test understanding and provide an immediate incentive to watch the assigned video.

- **Discussion board** on Discord

- YouTube [playlist](#) for reviewing relevant Econ 1 material

- Mark Machina's *Math Handout:*

ECONOMICS 100ABC MATHEMATICAL HANDOUT

2013-2014   Professor Mark Machina

A. CALCULUS REVIEW

Derivatives, Partial Derivatives and the Chain Rule*

You should already know what a derivative is. We'll use the expressions $f'(x)$ or $df(x)/dx$ for the derivative of the function $f(x)$.

When we have a function of more than one variable, we can consider its derivatives with respect to each of the variables, that is, each of its **partial derivatives**. We use the expressions:

$$\partial f(x_1,...,x_n)/\partial x_i \quad \text{and} \quad f_i(x_1,...,x_n)$$

interchangeably to denote the partial derivative of $f(x_1,...,x_n)$ with respect to its i'th argument x_i. To calculate this, treat $f(x_1,...,x_n)$ as a function of x_i alone, and differentiate it with respect to x_i. To indicate the partial derivative $\partial f(x_1,...,x_n)/\partial x_i$ evaluated at some point $(x_1^*,...,x_n^*)$, we'll use the expression $f_i(x_1^*,...,x_n^*)$.

For example, if $f(x_1,x_2) = x_1^2 \cdot x_2 + 3x_1$, we have:

$$\partial f(x_1,x_2)/\partial x_1 = 2x_1 \cdot x_2 + 3 \quad \text{and} \quad \partial f(x_1,x_2)/\partial x_2 = x_1^2$$

The **normal vector** of a function $f(x_1,...,x_n)$ at the point $(x_1,...,x_n)$ is just the vector (i.e., ordered list) of its n partial derivatives at that point, that is, the vector:

Course components

Lectures - Mon/Wed 5-6:20pm

- Attendance is not required, but it is encouraged. Also encouraged: asking questions, proposing answers to practice problems, answering polls, etc. There is no penalty for making mistakes, and sharing a wrong answer is a good way to avoid making that mistake on an exam.

- See the [Attendance and class etiquette](#) page for more details.

Discussion sections – Thursdays 4-5pm and 5-50pm, starting in week 1

- You can attend either section, or watch the recording.

- The TA will go over example problems which illustrate concepts we learned in class and help you prepare for homeworks and exams. Answer keys will be posted, but may not be as detailed.

Study groups – organized by the Academic Achievement Hub – time to be announced

Homeworks

- Weekly problem sets will be posted in Canvas.
  - They will be submitted on Gradescope and graded on completion – you have to make an honest attempt to solve each problem, and *show the full process of solving it*, not just the final answer.
  - 50% of the score for submissions up to 12 hrs late.
  - No extensions (including for joining late), but 85% of points maxes out your score.

Grade composition and exam scheduling

- Your total score will be calculated as follows:
  - Problem Sets   10%   (~10 total, graded on completion, score maxed out at 85%)
  - Rehearsal test   5%   (during the first half of week 3, details to be announced shortly)
  - Midterm 1   20%   Monday of week 4 during class (starting at 5:30pm)
  - Midterm 2   25%   Monday of week 8 during class (starting at 5pm)
  - Final   40%   Friday of finals week @7pm

Extra credit: participation in class & discussion sections, and/or on the discussion board (up to 2-3% for students who consistently engage with class)

Exams will be synchronous.

- Likely duration: 60-90 minutes for the midterms and 2 hours for the final.

- An alternate time will be available if the exam is between 11pm and 7am in the student's time zone:

  - For both the midterms and the final, the alternate time will be 9am earlier that day (this is subject to change over the next few days)

- You have to indicate if you need to take the exam at the alternate time in the form where you submit your exam Zoom link (see next slide)

Exam logistics (1/2)

Always read the instructions page and any instructions in the exam itself very carefully.
They are intended to help you avoid making mistakes.

You will self-proctor your exams. Here are the key steps:

- Account setup (beginning of the quarter):
  - Check that you are logged into your UCSD Pro Zoom account
  - Go to https://ucsd.zoom.us/profile/setting?tab=recording
    - Select "Record active speaker, gallery view and shared screen separately" and then all 3 components: Active speaker, Gallery view, Shared screen
    - Select "Add a timestamp to the recording"
  - Go to https://ucsd.zoom.us/profile/setting?tab=meeting and make sure the following are switched on:
    - "Always show meeting control toolbar"
    - "Show Zoom windows during screen share".
  - Go to the Zoom app on your computer, and click on the Settings wheel, then "Share Screen"
    - Select "Show my Zoom Windows to other participants when I am screen sharing"

- 2-3 days before the exam:
  - Schedule a "meeting" at https://ucsd.zoom.us/meeting/schedule and share the link in an assignment on Canvas

Exam logistics, cont'd (2/2)

- Day of the exam:
  - Once you start the exam meeting, check that it is being recorded and share the entire desktop. Show your environment, ID and scratch paper before starting the test.
  - Exams will have two components:
    - problem-solving on paper (you will scan and submit your answers in Gradescope)
    - and a Canvas-based test.
  - Before the timer on the written portion of the exam runs out, show all your answers as well as the cheat sheet to the camera.
  - You need to submit your scanned answers *before* you begin the next portion of the exam.
  - In the hours after the exam, submit your recording on Canvas.

- You will be able to contact us by email or can invite us into your Zoom meeting during the exam.
- You will be allowed a handwritten and scanned cheat sheet – the number of pages will vary by exam.

- It is okay to take the exam in a common area – i.e. if family members or roommates are around – as long as they are not discussing topics on the exam. You should document in the recording what is going on: e.g. say clearly "my parents are in the room". If this happens extensively, you don't need to keep saying so in the recording, but add a note at the end of the exam.

Exam rules and Academic Integrity

- Academic dishonesty will not be tolerated. Students are expected to do their own work, as outlined in the UCSD Policy on Integrity of Scholarship. All suspected cases of academic dishonesty will be reported to the Academic Integrity Coordinator.

- The following are a few examples of academic dishonesty
  1. Having another person complete an assignment (exam or homework) for you, or completing an assignment for someone else; lying about completing an assignment.
  2. Using an unauthorized device during an exam (e.g. tablet)
  3. Giving someone else *information about your own exam* before the end of the exam period.

  If you are not sure whether something is permitted, ASK!

- Remotely, we have no way of verifying whether or not Academic Integrity was upheld unless you follow exam rules. Therefore, I reserve the right to impose **penalties** for any **exam rule violations**, including up to 100% of the value of the exam (although your score is bounded at zero).

- You may also have to retake the test one-on-one, in addition to suffering penalties.

- If you face technical difficulties (e.g. Internet interruption) during an exam, continue taking the exam if you can, then inform us as soon as possible. Document in detail what happened.

- Any deviation from the rules that you fail to disclose promptly will receive a **much more severe** penalty.

Administrative Issues

1. If you have to miss an exam for a legitimate reason, you need to inform me as soon as reasonably possible. Unexcused absences will result in an exam score of zero.

2. Waitlist issues: I have no direct control over enrollment. For any questions regarding enrollment in the class, please use the Virtual Advising center, or email econugadvisor@ucsd.edu

3. If you have a *documented* disability, please submit the necessary paperwork with the Office for Students with Disabilities as soon as possible. Follow up with me to ensure I got the notification.

Tech support

For **general issues** with any campus IT systems:
Email: servicedesk@ucsd.edu
Phone: (858) 246-4357, 7 a.m. – 10 p.m. weekdays and noon – 3 p.m. weekends

Canvas tutorials:
https://community.canvaslms.com/t5/Video-Guide/tkb-p/videos#Students
https://students.ucsd.edu/campus-services/technology/help.html

Redshelf is the online equivalent of the **campus bookstore**
    For questions about billing please contact textbooks@ucsd.edu
    For any questions about using your eBook please reference RedShelf Solve.

Tour of the class page

https://canvas.ucsd.edu/courses/26699