

# ARE 100A: INTERMEDIATE MICROECONOMICS

## Administration

- **Instructor:**  
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- **Lectures:**  
Tuesday and Thursday 9–10:20AM  
Location: Wellman 002
- **Website:**  
<https://canvas.ucdavis.edu/courses/944794>

## Description

This is the first of two 4-unit courses (with ARE 100B) that provide a technical introduction to microeconomics using calculus. Topics cover consumer theory, producer theory, and competitive market equilibrium. We analyze market outcomes, aggregate surplus, and heterogeneous impacts on different subgroups. We discuss policies to increase economic welfare as well as practical barriers to implementation, with examples drawn from agriculture, environment, labor, immigration, management, urban planning, and a number of other areas. The focus of this course is to develop and learn to apply a set of tools that can be used to analyze a broad variety of scenarios. The course material will loosely match the first several chapters of any undergraduate-level microeconomics text and is standard for a college intermediate microeconomics course.

This course relies on calculus, and students are expected to have an understanding of algebra, functions, and derivatives. Prerequisites are strictly enforced as per department policy, and any questions about prerequisites or enrollment should be directed to the department's awesome undergraduate advisors at [manecon@primal.ucdavis.edu](mailto:manecon@primal.ucdavis.edu).

## Learning Objectives

The goal of this course is to teach the basic tools economists use to analyze the world. Over the quarter, we will learn how to take a practical question, frame it in economic terms, and then apply economic models to generate an answer. Students will be expected to learn problem solving methods, so do not focus on memorizing the answers from class. Instead, try to understand the steps we use to generate the answer well enough to apply them to new questions.

There are two main learning objectives. First, this course will teach quantitative problem solving. We will use constrained optimization as the primary problem solving tool. By the end of the quarter, students should understand how to solve a constrained optimization problem using calculus, how to depict it graphically, and how to interpret the solution. Exams will include some questions that must be solved quantitatively with calculus.

Second, we will focus on how to apply the models from class to real-world problems. We will use a variety of both hypothetical and actual settings to understand how economic models can inform our decisions. Exams will include word problems that ask students to identify the relevant economic concept and to apply it to arrive at the answer.

## Course Format

This course will use a flipped classroom format. Each week, I will assign a prerecorded lecture and associated reading. Recordings cover the same material as the reading with more explanation and numerical examples. Students may use either set of materials to learn the necessary content for the week. Please stay tuned to the Announcements section of the course website (or have announcements forwarded to your email) in case of updates.

In-class attendance is mandatory. We'll use the scheduled course time for in-class discussion and practice for the week's topics. I will reserve the first part of each class to answer questions about the week's material, and we will spend the rest of the time working through practice questions. Problem-solving techniques we use in class may show up on exams. Announcements and updates to course policy will also be made in-class.

Every week, there will be a "quiz" on Canvas asking for feedback about the week. Please use these quizzes to let me know what is or isn't working, and what might be improved. Your answers will remain anonymous unless you choose to include your name.

## Materials

Video lectures and readings will be posted on the course website. All course content will be covered in the videos and readings. An incomplete version of the lecture slides will be posted. The slides are a guide to help you take notes to study independently. A completed version will NOT be posted.

The textbook of record is *Microeconomics: Theory and Applications with Calculus* by Jeffrey Perloff. Any version of this text, or anything comparable, may be a useful guide to review the course material but are strictly optional. The text can be purchased as a part of equitable access or on Amazon.

## Requirements

Attendance is mandatory in class and optional for discussion section. You will be graded on eight homework assignments, participation in feedback quizzes, a midterm, and a comprehensive final exam. Please remember to indicate your name on all materials you submit (except anonymous feedback answers). Final grades will consist of the following:

1. **Homework (175 pts.):** There will be a total of eight homeworks, due on Mondays by noon, and can be submitted by 11:59PM for 60% credit. Students are encouraged to work together on assignments, but each student is responsible for submitting their own answers in their own words. Homeworks should be uploaded in .pdf format to the course website and will be graded for completion. Solutions will be posted the Saturday before they are due in case you are stuck.
2. **Feedback (25 pts.):** Each week I will post an anonymous feedback “quiz” on Canvas. Please use this space to let me know what is or is not working about the class, or make suggestions to improve. Quizzes will be graded for participation; you can get full credit by submitting blank answers.
3. **Midterm exam (80 pts.):** There will be an in-class midterm on February 13.
4. **Final exam (120 pts.):** There will be a comprehensive in-person final exam on March 18 at 6PM. Students whose score improves by more than 1.5 standard deviations from the midterm to the final will have a greater weight placed on their final grade. Both exams will be open note in some form, but collaboration or consultation with other people is not allowed.

I do not offer excused absences, extensions, retakes, or extra credit for homeworks or exams. However, I recognize that life circumstances sometimes prevent students from meeting all their obligations. To accommodate this, you can miss up to one homework submission and two feedback quizzes before it will impact your grade. If you need further accommodation for whatever reason, please contact me to work out an arrangement.

If you feel there was an error in grading your exam, you must submit your original graded work along with a brief description detailing exactly where you believe the error to be and why. Your entire answer will be scored again, and your grade may decline if the scorer notices mistakes that were missed the first time. You should only use this option if you are very confident there was a mistake in scoring.

# Notice of the Academic Code of Conduct

This course is bound by the university's Code of Academic Conduct. It is a violation of the Code to post materials from this course on other websites or forums without permission. Full text can be found at <https://sja.ucdavis.edu/files/cac.pdf>.

## Additional Student Resources

Additional student resources related to academic support, health & wellness, career options, and campus community are available at <https://ebeler.faculty.ucdavis.edu/resources/faq-student-resources>. Please don't hesitate to use the campus resources or reach out to me with concerns about your physical or mental health.

## Course Schedule

Please watch the recorded lectures before the week they are listed.

Week 1 (1/7, 1/9): Introduction and Overview

Week 2 (1/14, 1/16): Utility Maximization

Homework 1 due Monday 1/20, 12PM

Week 3 (1/21, 1/23): Positive Consumer Theory

Homework 2 due Monday 1/27, 12PM

Week 4 (1/28, 1/30): Normative Consumer Theory

Homework 3 due Monday 2/3, 12PM

Week 5 (2/4, 2/6): Consumer Policy Analysis

Homework 4 due Monday 2/10, 12PM

Week 6 (2/11): Producer Theory Basics (through L06E07)

**Midterm Exam: Thursday, 2/13 9–10:20AM**

No homework assigned

Week 7 (2/18, 2/20): Producer Theory & Producer Profits

Homework 5 due Monday 2/24, 12PM

Week 8 (2/25, 2/27): Market Equilibrium

Homework 6 due Monday 3/3, 12PM

Week 9 (3/4, 3/6): Market Policy Analysis

Homework 7 due Monday 3/10, 12PM

Week 10 (3/11, 3/13): Trade Policy

Homework 8 due Friday 3/14, 12PM

**Final Exam: Tuesday, 3/18 6–8PM**