

## Econ 310 – Syllabus Spring 2024

### **Welcome**

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Welcome to Econ 310! This is a “flipped” course, which means that every week before coming to class you’ll watch the lecture videos I pre-recorded and “lecture” time will be devoted to practicing that material and answering your questions about those videos. All lectures videos are about 5-15 minutes in length and can be found on the course Canvas page; there are a very large number of these videos, but they’re organized and labeled clearly.

This syllabus lets you know which videos to have watched for each week of class. There are six exams in this class: 4 quizzes, a midterm, and a final. Note that, even though you can watch the lectures at your own pace, the quizzes are due on specific dates/times, and the midterm and final are held during specific dates and times. Make sure your schedule is open for the midterm and the final exam.

### **Professor Contact Information**

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*Office Hours:* M/W, 12pm-1:30pm

*Email:* [bryan.tomlin@csuci.edu](mailto:bryan.tomlin@csuci.edu)

### **Course Description**

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We will discuss theoretical models and applied tests of how individuals make decisions in market settings, including decision making under uncertainty. We will also discuss theoretical treatments of how firms maximize profits under various competitive environments. Our treatment of firm competition will segue into a discussion of the core concepts of game theory and their applications. A thorough understanding of this material will leave you well prepared for future microeconomic courses such as labor economics and industrial organization. Passing this course will REQUIRE an understanding of algebra and basic calculus, but that’s okay, because this material is sufficiently covered in the prerequisite math courses (see below).

Program Learning Goals: These are the skills we try to help you build in all MVS courses

1. Critical Thinking
2. Oral Communication
3. Written Communication
4. Collaboration
5. Conduct (Ethics)
6. Competency in Discipline

Course Learning Outcomes: Upon completion of this course, you will be able to

1. Explain the economic behavior of firms and households (1, 3, 6)
2. Describe and apply the scientific method to economic behavior, and devise methods for identifying the factors that motivate individuals and firms (1, 3, 6)
3. Apply the principles of competitive markets to identify factors that affect market prices and output (1, 3, 6)
4. Describe and distinguish between various forms of individual preferences over commodities, risky assets, and psychological goods, and understand how to identify preference types from observed behavior (1, 3, 6)
5. Evaluate the manner(s) in which public policy may affect behavior (1, 3, 6)

## Prerequisites

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ECON 110, ECON 111, and MATH 140 or MATH 150

## Texts

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**Recommended (not required):** Varian, Hal R.; “Intermediate Microeconomics, A modern Approach,” Any Edition, W. W. Norton & Company

## Grading and Examinations

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*You may use all of your notes/materials to take all exams (quizzes, midterm, and final).*

*Quizzes can be taken in groups with your classmates if you like, and while your questions will all be the same, the answers will differ due to my use of randomization to populate numeric values. The midterm and final must be taken by yourself.*

### Quizzes (12% each, 48% total)

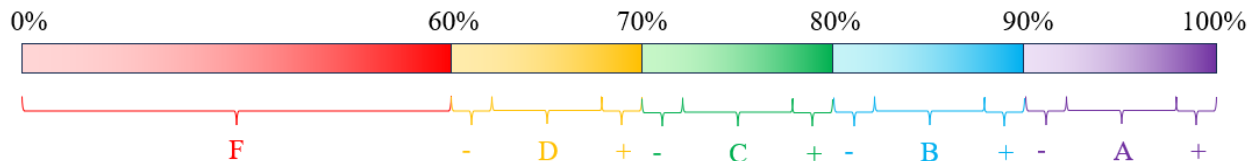
| Quiz Number | Lecture Videos Covered | Due (before midnight on this day) |
|-------------|------------------------|-----------------------------------|
| Quiz 1      | 1 – 21                 | Friday, February 9                |
| Quiz 2      | 22 – 44                | Friday, March 1                   |
| Quiz 3      | 57 – 67                | Friday, April 12                  |
| Quiz 4      | 68 – 76                | Friday, May 3                     |

**The midterm and the final are held on specific dates and times:**

**Midterm (26%)** – Monday, March 11, in class – Covers lecture videos 1-56

**Final Exam (26%)** – Finals week; see final exam schedule – Covers lecture videos 57-84

Your letter grade will be determined as shown below, with “+” or “-“ assigned if your grade falls in the top or bottom quartile of any range, respectively. (E.g. grades between 80.00% and 82.50% earn a B-, while grades between 87.50% and 89.99% earn a B+).



## Missed Exam/Quiz Policy

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Make-up exams will be scheduled for students who have legitimate and appropriate reasons for having missed an examination. All exam dates are listed on this syllabus.

## Academic Honesty

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Academic honesty is of the utmost importance, and any academic misconduct will be subject to the strictest enforcement possible. This includes taking the midterm or the final with anyone’s help – the midterm and final must be taken by yourself.

See <http://www.csuci.edu/studentlife/judicial-affairs/academic-dishonesty.htm> for more information.

## Course Schedule

As this is a flipped course, before attending “lecture” I ask that you prepare yourself by having watched the appropriate lecture videos (see table, below). Come prepared with any questions and practice problems you might want to attempt. Practice problems are located at the end of the videos within each module on the Canvas page.

| Lecture Week (Mon-Fri) | Videos to have reviewed before lecture | Notes                                                                                 |
|------------------------|----------------------------------------|---------------------------------------------------------------------------------------|
| 1 (1/22-1/26)          | 1-9                                    | Introduction and syllabus review. Review of key mathematical concepts.                |
| 2 (1/29-2/2)           | 10-21                                  | Modeling consumer budget.                                                             |
| 3 (2/5-2/9)            | 22-34                                  | Modeling consumer preferences. Quiz 1 due.                                            |
| 4 (2/12-2/16)          | 22-34                                  | Preference modeling continued. May move into videos 35-46 if time permits.            |
| 5 (2/19-2/23)          | 35-46                                  | Optimal choice: utility maximization subject to a constraint. Elasticity.             |
| 6 (2/26-3/1)           | 42-56                                  | Labor-leisure modeling. Quiz 2 due.                                                   |
| 7 (3/4-3/8)            | 47-56                                  | Midterm review.                                                                       |
| 8 (3/11-3/15)*         | Midterm (3/11 – in class)              | Midterm (3/11 – in class)                                                             |
| 9 (3/18-3/22)          | Spring break                           | Spring break                                                                          |
| 10 (3/25-3/29)         | 57-67                                  | Choice under uncertainty.                                                             |
| 11 (4/1-4/5)           | 57-67                                  | César Chávez Day                                                                      |
| 12 (4/8-4/12)          | 68-74                                  | Profit maximization. Perfect competition. Monopoly. Price discrimination. Quiz 3 due. |
| 13 (4/15-4/19)         | 68-80                                  | Cournot duopoly. Introduction to game theory.                                         |
| 14 (4/22-4/26)         | 77-84                                  | Game theory.                                                                          |
| 15 (4/29-5/3)          | 77-85                                  | Stackelberg duopoly. Quiz 4 due.                                                      |
| 16 (5/6-5/10)          | Review for Final Exam                  | Review for Final Exam                                                                 |

### Lecture Schedule (Topics and Tests)

All lectures are numbered (1-84) and are intended to be watched in that order.

| Lecture Video #s | Topics Covered                                                                                                                        | Exam(s) in which this material is tested |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 1-9              | Math Review                                                                                                                           | All quizzes, midterm, final              |
| 10-21            | Consumer theory, choice sets, budget constraints, effect of policies on consumer choice sets                                          | Quiz 1, midterm                          |
| 22-28            | Preference modeling, indifference curves, graphical and mathematical representation of preferences                                    | Quiz 2, midterm                          |
| 29-34            | Mathematical modeling of preferences using utility, specific utility functional forms and their implications                          | Quiz 2, midterm                          |
| 35-44            | Consumer choice, utility maximization subject to the budget constraint, deriving demand curves and interpreting their properties      | Quiz 2, midterm                          |
| 45-46            | Elasticity                                                                                                                            | Midterm                                  |
| 47-56            | Application of consumer choice to the labor market, labor incentives, and effect of policies on labor decisions                       | Midterm                                  |
| 57-67            | Choice under uncertainty, risk preferences, assessing relative risk preferences and eliciting willingness to pay for a risky prospect | Quiz 3, final                            |
| 68-76            | Firm profit, profit maximization, perfect competition, monopoly, duopoly models                                                       | Quiz 4, final                            |
| 77-85            | Game theory, simultaneous games, location games, finding equilibrium in a normal form game. Sequential games and Stackelberg duopoly. | Final                                    |