

**ECON 3070: Intermediate Microeconomic Theory**

**Fall 2020**

Instructors: Professors Richard Mansfield and Yongmin Chen

Office Hours (online):

Prof. Mansfield: Monday: 10:00AM – Noon, Thursday: 2PM-4PM

Prof. Chen: Wednesday: 1:00PM-5:00 PM

**Course Description:** This course provides a comprehensive introduction to microeconomic theory. The content includes consumer choice of products, firm production decisions, equilibrium market-level prices and quantities, and evaluation of the impact of government policies on consumer and producer welfare. However, the chief aim of the course is to teach you how to develop and work with formal economic models. Specifically, in this course you will learn:

- The ingredients of an economic model
- How to combine the ingredients to formulate a fully specified model
- What it means to (and how to) solve a model
- How to adjust model assumptions in the face of new evidence in order to improve the accuracy of its predictions

We will apply these tools by formulating and solving economic problems from the perspective of the consumer, the firm, the worker, and the government, respectively.

More fundamentally, in the course of learning to work with economic models, you will develop a deeper understanding of how to represent economic logic verbally, graphically, and algebraically (and how to easily move back and forth between these forms). Of particular importance is learning how to convert intuitive statements into mathematical representations.

**Prerequisites:** Economics Prerequisites: ECON 2010

Mathematics Prerequisites: Either the combination (ECON 1078 AND ECON 1088) or MATH 1081 or the combination (MATH 1080, MATH 1090 and MATH 1100)

**In order to take this course, you are required to meet the course prerequisites. You must have passed an introductory course in economics or microeconomics. Some basic knowledge of calculus is also required.**

**Course Material:** The textbook is *Microeconomics, 5th edition*, by David Besanko and Ronald Braeutigam, published by John Wiley & Sons, Inc. We have indicated the required readings below in the course schedule toward the end of the syllabus.

Grading: Grades are based on homework quizzes (10%) and recitation/lecture attendance (5%), midterm exam 1 (25%), midterm exam 2 (25%), and a final exam (35%).

Weekly problem sets will be distributed that are designed to reinforce and expand upon the topics covered in class. These problem sets will not be graded, and solutions will be provided separately at the time they are distributed. Instead, quizzes tied closely to these problem sets will occur in recitation each week. Scores on these quizzes will comprise 10% of each student's grade. Quizzes may not be made up, but each student's lowest score over the course of the semester will be dropped.

There will be two 75 minute online midterm examinations (tentative dates: September 29<sup>th</sup> and November 3<sup>rd</sup>). Each midterm will comprise 25% of each student's grade. The final exam will comprise 35% of the student's grade. The final exam will be comprehensive, but will focus primarily on untested content from the final third of the semester. The final 5% of each student's grade will be based on recitation attendance (online or in-person) and lecture attendance and attention, as judged by answers to diagnostic PlayPosit questions nested within online lecture videos.

The final exam will last 2.5 hours and will take place on a date to be announced.

Each student's weighted average score will be calculated, and a final letter grade will be computed based on a curve that ensures that the distribution of grades will be similar to that observed in other sections of ECON3070.

Recitations: Each student at the time of enrollment must select a recitation time. Recitations will generally be held in person in the room assigned to the chosen recitation time. Homework quizzes will generally occupy the first 10 minutes of recitation time, with the remaining time spent demonstrating how to solve additional practice problems closely related to the core course material upon which exams are based.

Remote Students: Students who are planning to attend CU Boulder fully remotely this semester should add themselves to the following Google Form: <https://forms.gle/MG2JFAvpYYrghonF8>. Once we determine the number of such students, the professors and teaching assistants will reach out to schedule a single online recitation to accommodate as many students as we can. Remote students will be expected to take homework quizzes either during the first 10 minutes of either the single online recitation or their regularly scheduled recitation (the quiz will be unlocked for access on the Canvas website at this time).

How to Study Effectively in this Course: I suggest that you **read the assigned materials before watching each lecture**, so that you are prepared. Take notes during the lecture. After each class, **have a quick review within the same day**. Make sure to complete the problem sets and then

consult the suggested solutions prior to the date of the associated quiz. If you have questions, seek answers from the teaching assistant.

### Course Schedule:

The course is arranged by topics, and each topic is usually covered over multiple lectures. Below is a tentative course schedule. There may be changes to this schedule during the semester, which will be announced in class. It is your responsibility to update course information according to announcements made in class. As indicated by this schedule, Homework assignments based on the week's lecture content will be posted near the end of the week, and quizzes based on these assignments will occur in recitation the following week.

### Topics

### Readings

#### 1. Introduction to Microeconomic Analysis

Ch. 1; Ch. 2

HW 1: posted on 8/27, quiz in recitation on week of 8/31-9/4.

Extra practice problems: pp. 21-22: #1.2, 1.3, 1.9;

pp. 70-73: #2.1, 2.3, 2.5, 2.8, 2.13, 2.15, 2.16.

#### 2. Consumer Preferences and Utility

Ch. 3

HW 2: posted on 9/3, quiz in recitation on week of 9/7-9/11.

Extra practice problems: pp. 102-104: #3.10, 3.12, 3.13, 3.15, 3.16, 3.17, 3.18, 3.21.

#### 3. Consumer Choice

Ch. 4

HW 3: posted on 9/10, quiz in recitation on week of 9/14-9/18.

Extra practice problems: pp. 140-145: #4.1, 4.2, 4.3, 4.5, 4.6, 4.7, 4.8, 4.9, 4.18.

#### 4. Product Demand Curves

Ch. 5

HW 4: posted on 9/17, quiz in recitation on week of 9/21-9/25.

Extra practice problems: pp. 140-145: #4.1, 4.2, 4.3, 4.5, 4.6, 4.7, 4.8, 4.9, 4.18.

#### 5. Non-Linear Budget Constraints and Consumer Welfare

Ch. 4 & 5

HW 5: posted on 9/24, no quiz due to midterm exam.

Extra practice problems: pp. 200-203: #5.6, 5.7, 5.12, 5.18, 5.19, 5.23, 5.24.

**EXAM 1:** Thursday, 9/29.

Review lecture posted on Monday, 9/26.

#### 6. Inputs and Production Functions

Ch. 6

HW 6: posted on 10/1, quiz in recitation on week of 10/5-10/9  
Extra practice problems: pp. 243-247: #6.1, 6.2, 6.5, 6.9,  
6.12, 6.13, 6.15, 6.17, 6.19, 6.20.

7. Cost Minimization and Elasticities Ch. 7  
HW 7: posted on 10/8, quiz in recitation on week of 10/12-10/16  
Extra practice problems: pp. 281-284: #7.1, 7.3, 7.4, 7.5, 7.9, 7.13, 7.14, 7.20;  
pp. 323-326: #8.2, 8.5, 8.6.

8. Perfectly Competitive Markets Ch. 9  
HW 8: pp. 382-387: #9.1, 9.3, 9.6, 9.7, 9.9, 9.11, 9.15, 9.18  
Quiz in recitation on week of 10/19-10/23  
Extra practice problems.

9. Competitive Markets and Economic Efficiency Ch. 10  
HW 9: pp. 436-438: #10.1, 10.4, 10.7, 10.9, 10.13(a,b,c,d)  
Quiz in recitation on week of 10/26-10/30  
Extra practice problems.

**EXAM 2:** Tuesday, 11/3.

10. Monopoly Ch. 11 (442-478)  
HW 10: pp. 485-488: #11.1, 11.2, 11.3, 11.5, 11.6, 11.10, 11.13;  
Quiz in recitation on week of 11/9-11/13

11. Monopoly Price Discrimination and Bundling Ch. 12  
HW 11: pp. 527-529: #12.1, 12.2, 12.3, 12.4, 12.10  
Quiz in recitation on week of 11/16-10/20  
Extra practice problems.

13. Market Structure and Competition Ch. 13  
HW 12: pp. 568: #13.2, 13.4, 13.5.  
Extra practice problems.

14. Game Theory and Strategic Behavior Ch. 14  
HW 13: pp. 601-606: #14.1, 14.2, 14.3, 14.4, 14.5, 14.11, 14.12.  
Quiz in recitation on week of 11/30-12/4

15. Risk and Information Ch. 15

**FINAL EXAM:** TBA

# Department Resources

- The Office of Victim Assistance can be reached at 303-492-8855. Its <http://www.colorado.edu/ova/>.
- The webpage [www.colorado.edu/undocumented](http://www.colorado.edu/undocumented) contains information regarding campus counseling resources available for students and employees with DACA Status.
- The Economics Department provides a free drop-in tutorial office which offers assistance on all core courses in the major, and occasionally on other undergraduate courses in the Department. Its website is <https://www.colorado.edu/economics/node/513/attachment>.
- The Economics Department maintains a list of tutors who are available for private hire. Its website is <https://www.colorado.edu/economics/node/515/attachment>.
- The website <https://www.colorado.edu/redfolder/> provides guidance with regard to assisting students in distress.

# University Policies

## Classroom Behavior

Both students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote or online. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. For more information, see the policies on [classroom behavior](#) and the [Student Code of Conduct](#).

## Requirements for COVID-19

As a matter of public health and safety due to the pandemic, all members of the CU Boulder community and all visitors to campus must follow university, department and building requirements, and public health orders in place to reduce the risk of spreading infectious disease. Required safety measures at CU Boulder relevant to the classroom setting include:

- maintain 6-foot distancing when possible,

- wear a face covering in public indoor spaces and outdoors while on campus consistent with state and county health orders,
- clean local work area,
- practice hand hygiene,
- follow public health orders, and
- if sick and you live off campus, do not come onto campus (unless instructed by a CU Healthcare professional), or if you live on-campus, please alert [CU Boulder Medical Services](#).

Students who fail to adhere to these requirements will be asked to leave class, and students who do not leave class when asked or who refuse to comply with these requirements will be referred to [Student Conduct and Conflict Resolution](#). For more information, see the policies on [COVID-19 Health and Safety](#) and [classroom behavior](#) and the [Student Code of Conduct](#). If you require accommodation because a disability prevents you from fulfilling these safety measures, please see the “Accommodation for Disabilities” statement on this syllabus.

Before returning to campus, all students must complete the [COVID-19 Student Health and Expectations Course](#). Before coming on to campus each day, all students are required to complete a [Daily Health Form](#).

Students who have tested positive for COVID-19, have symptoms of COVID-19, or have had close contact with someone who has tested positive for or had symptoms of COVID-19 must stay home and complete the [Health Questionnaire and Illness Reporting Form](#) remotely. In this class, if you are sick or quarantined, e-mail your teaching assistant and remote learning arrangements will be made.

## **Accommodation for Disabilities**

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the [Disability Services website](#). Contact Disability Services at 303-492-8671 or [dsinfo@colorado.edu](mailto:dsinfo@colorado.edu) for further assistance. If you have a temporary medical condition, see [Temporary Medical Conditions](#) on the Disability Services website.

## **Preferred Student Names and Pronouns**

CU Boulder recognizes that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on instructors' class rosters. In the absence of such updates, the name that appears on the class roster is the student's legal name.

## **Honor Code**

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the Honor Code. Violations of the policy may include: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code ([honor@colorado.edu](mailto:honor@colorado.edu)); 303-492-5550). Students found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code as well as academic sanctions from the faculty member. Additional information regarding the Honor Code academic integrity policy can be found at the [Honor Code Office website](#).

## **Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation**

The University of Colorado Boulder (CU Boulder) is committed to fostering an inclusive and welcoming learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct (harassment, exploitation, and assault), intimate partner violence (dating or domestic violence), stalking, or protected-class discrimination or harassment by members of our community. Individuals who believe they have been subject to misconduct or retaliatory actions for reporting a concern should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or [cureport@colorado.edu](mailto:cureport@colorado.edu). Information about the OIEC, university policies, [anonymous reporting](#), and the campus resources can be found on the [OIEC website](#).

Please know that faculty and instructors have a responsibility to inform OIEC when made aware of incidents of sexual misconduct, dating and domestic violence, stalking, discrimination, harassment and/or related retaliation, to ensure that individuals impacted receive information about options for reporting and support resources.

## **Religious Holidays**

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with

scheduled exams, assignments or required attendance. See the [campus policy regarding religious observances](#) for full details. **If you expect to miss an exam in order to observe a religious holiday, you must communicate this request to the professor prior to Monday, August 31st.**