#### UNIVERSITY OF COLORADO

# Department of Economics Economics 3070 Intermediate Microeconomic Theory

#### **Fall 2025**

**Professor:** Tania Barham Economics 114

Email: tania.barham@colorado.edu

**Lectures:** T/TH 9:30 - 10:45

**Office Hours:** ECON 117 T/TH 10:45 – 12:15

Course Website: Canvas TA: TBD

## **Course Description**

This course introduces the theoretical framework for analyzing the economic behavior of individual decision-makers, such as consumers, workers, firms. The course is divided into six sections. We begin with a basic review of supply and demand in Section 1. We then proceed to Section 2, which covers consumer behavior and market demand. In this section, we build a model of consumer choice and use this model to derive individual demand and market demand. In Section 3, we turn our attention to the other side of the market and analyze the behavior of firms and market supply. We build a model to show how each firm decides what technology it should use to make its product and what quantity of this product to bring to market. This model is then used to derive the firm's supply curve and the market supply curve. Section 4 brings the two sides of the market together to show how price and output are determined by the market. In Section 5 we examine efficiency and equity of the model and see how some common policy tools, such as taxes, can be modelled. Finally, we examine a variety of market structures, the primary ones examined include perfect competition and monopoly. If time permits, we will close the semester by examining some issues such as behavioral economics or public policy.

#### **Prerequisites**

Available to students who have completed ECON 100 Introduction to Economics or ECON 2010 Principles of Microeconomics, and either ECON 1078 Math Tools for Economists I and ECON 1088 Math Tools for Economists II, or MATH 1300.

#### **Textbook**

The required textbook is *Microeconomics* (edition 4, 5 or 6) by David Besanko and Ronald R. Braeutigam, 2013, John Wiley & Sons, New York, ISBN 978-1-11857227-6. There is a study guide available to accompany the textbook. You may wish to purchase the study guide if you would like extra practice solving problems, but doing so is not required. Lectures are based on the textbook and it is an important resource for learning material, especially if you miss a class. Please note that how to do optimization problems is taught in the class and it is important you attend class and follow the methods taught in class.

#### Clickers

We will be using iclickers. This class will start online so we will use the cloud for clickers while online. When class is in person you can use physical clickers. You do need to set up an iclicker account with your <u>CU email</u>. If you have any problems with your clickers call OIT at 5HELP. Remember that using someone else's clicker for them or clicking in from home violates the honor code.

# **Course Requirements**

Participation and Attendance

Please note attendance for two of the first three classes in mandatory. Your participation and attendance grades will be based on random attendance checks and clicker data throughout the semester and your participation during the class. I may also give unannounced quizzes. Sections with your TA are mandatory. I allow you to be absent for 5 classes before an absence affects your participation grade. You may miss 2 sections before it affects your grade. There is no need to email me to let me know you will be absent or why, unless you are very sick and will be out for than two weeks. If this is the case, you should contact me to determine how your absence will be addressed. Your attendance grade is made of up of the percent of classes you are marked present for which attendance is taken and a participation grade that I assign based on your in-class participation. If you miss a class, it is the student's responsibility to catch-up on any missed material from other students in the class.

## **Grading**

There will be 8 homework assignments, two mid-term examinations and one final exam. The weighting for these assessments are:

Assignments and Quizzes 15%

Participation/Attendance 15% (attendance in lectures and section)

Midterm Exam 120%Midterm Exam 220%Final Exam30%

#### **Assignments**

The schedule of when problem sets are due is below. Problem sets are essential practice for the exam. Problem sets will be posted on-line about a week prior to when they are due. They are due at midnight. Late problem sets will receive a score of zero. The two assignments with the lowest scores will be dropped and not count towards your grade. Because of this policy, I don't accept late homework for any reason including being sick. However, if you are sick for an extended period of time we can make arrangements. I recommend you do all the homeworks as the exams are structured somewhat similarly to homework questions.

Students can work on the problem sets in small groups (4 people or less). However, each person *must* submit their own write-ups of their problem sets *and* you must put the names of your group members on your assignment (make sure your name is distinct from the group members, so I know who to give the grade to). Handing in identical homework is not permitted and will result in a zero for all people with identical homework. Homeworks for which any answer is identical to a solution key from past years will receive a grade of 0, even if just one of the questions on the homework was copied.

Each assignment will be graded on a scale from 0 to 3: 0 points for not handing it in, 1 point for poor performance (, 2 points for average performance, and 3 points for outstanding performance.

#### **Exams**

There are two midterms and a final in this course. No makeup exams will be given. If there is a proven emergency or other unusual circumstance and you miss an exam, your grade for your miss exam will be filled in by reweighting future exams (e.g. if you miss the second exam I will reweight the final).

#### **Tutors**

It is best to come to office hours to get help from myself or the TA when you need it. Please don't be shy. If you feel you need a tutor here are two resources to help you find someone.

- The Economics Department provides a free drop-in tutorial office which offers assistance on all course courses in the major, and occasionally on other undergraduate courses in the Department. Its website is <a href="https://www.colorado.edu/economics/node/513/attachment">https://www.colorado.edu/economics/node/513/attachment</a>.
- > 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.

# **Tentative Course Schedule**

# Please note due dates are subject to change. Changes are almost always to a later date

TOPIC	READINGS	ASSIGNMENTS DUE
	1	(Day of Week Due)
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	Ch 2	PS 0: Math Review (Due
		Th)
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Preferences and Utility	Ch 3	PS 1: Ch 1-2 (Due Th)
Consumer Choice	Ch 4	
Consumer Choice	Ch 4	PS 2: Ch 3 (Due Th)
The Theory of Demand	Ch 5	PS 3: Ch 4 (Due Th)
The Theory of Demand	Ch 5	PS 4: Ch 5 (Due Th)
Inputs and Production Functions	Ch 6	
Midterm Exam 1: Tuesday Sep	t 30 (Ch 2-5)	
Inputs and Production Functions	Ch 6	
Inputs and Production Functions	Ch 6	
Costs and Cost Minimization	Ch 7	PS 5: Ch 6 (Due Th)
Cost Curves	Ch 8	
Perfectly Competitive Markets	Ch 9	PS 6: Ch 7/8 (Due Th)
Perfectly Competitive Markets	Ch 9	
Competitive Markets: Applications	Ch 10	PS 7: Ch 9 (Due Th)
Competitive Markets: Applications	Ch 10	
Midterm 2: Tuesday No	ov. 11 <sup>th</sup> (Ch 2-	9)
Efficiency of Competitive Mrkt	Ch 16.4	PS 8: Ch 10-16 (Due Fri)
THANKSGIVING BRI	EAK ENJOY!	
Market Structure	Ch 13.1	
Monopoly	Ch 11	
Final Evan Course Al	II Chantous	
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	Overview: Analysis  Math Review  Math Review / Supply and Demand Analysis  Preferences and Utility  Preferences and Utility  Consumer Choice  Consumer Choice  The Theory of Demand  Inputs and Production Functions  Inputs and Production Functions  Midterm Exam 1: Tuesday Sep  Inputs and Production Functions  Costs and Cost Minimization  Cost Curves  Perfectly Competitive Markets  Perfectly Competitive Markets  Competitive Markets:  Applications  Competitive Markets:  Applications  Midterm 2: Tuesday No  Efficiency of Competitive Mrkt  THANKSGIVING BRI  Market Structure  Monopoly	Overview: Analysis  Math Review  A.1-A.7  Math Review / Ch 2  Supply and Demand Analysis  Preferences and Utility  Ch 3  Preferences and Utility  Ch 3  Consumer Choice  Ch 4  Consumer Choice  Ch 4  The Theory of Demand  Ch 5  Inputs and Production Functions  Inputs and Production Functions  Ch 6  Midterm Exam 1: Tuesday Sept 30 (Ch 2-5)  Inputs and Production Functions  Ch 6  Costs and Cost Minimization  Ch 7  Cost Curves  Ch 8  Perfectly Competitive Markets  Ch 9  Perfectly Competitive Markets  Ch 9  Competitive Markets:  Applications  Competitive Markets:  Ch 10  Applications  Midterm 2: Tuesday Nov. 11th (Ch 2-Efficiency of Competitive Mrkt  THANKSGIVING BREAK ENJOY!  Market Structure  Ch 13.1

## **University Policies**

#### CLASSROOM BEHAVIOR

Students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote, or online. Failure 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 <u>classroom behavior policy</u>, the <u>Student Code of Conduct</u>, and the <u>Office of Institutional Equity and Compliance</u>.

#### REQUIREMENTS FOR INFECTIOUS DISEASE

Members of the CU Boulder community and visitors to campus must follow university, department, and building health and safety requirements and all applicable campus policies and public health guidelines to reduce the risk of spreading infectious diseases. If public health conditions require, the university may also invoke related requirements for student conduct and disability accommodation that will apply to this class.

If you feel ill and think you might have COVID-19 or if you have tested positive for COVID-19, please stay home and follow the <u>guidance of the Centers for Disease Control and Prevention</u> (CDC) for isolation and testing. If you have been in close contact with someone who has COVID-19 but do not have any symptoms and have not tested positive for COVID-19, you do not need to stay home but should follow the <u>guidance of the CDC for masking and testing</u>.

# ACCOMMODATIONS FOR DISABILITIES, TEMPORARY MEDICAL CONDITIONS, AND MEDICAL ISOLATION

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member by September 30<sup>th</sup> 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 <u>Disability Services website</u>. Contact Disability Services at 303-492-8671 or <u>DSinfo@colorado.edu</u> for further assistance. If you have a temporary medical condition, see <u>Temporary Medical Conditions</u> on the Disability Services website.

If you have a temporary illness, injury or required medical isolation for which you require adjustment, please email me if you will be missing more than the 4 classes allowable already in the syllabus without affecting your grade.

#### 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 Honor Code may include but are not limited to: plagiarism (including use of paper writing services or technology [such as essay bots]), 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. Understanding the course's syllabus is a vital part of adhering to the Honor Code.

All incidents of academic misconduct will be reported to Student Conduct & Conflict Resolution: <a href="StudentConduct@colorado.edu">Students found responsible for violating the Honor Code will be assigned resolution outcomes from Student Conduct & Conflict Resolution and will be subject to academic sanctions from the faculty member. Visit <a href="Honor Code">Honor Code</a> for more information on the academic integrity policy.

# MENTAL HEALTH AND WELLNESS

The University of Colorado Boulder is committed to the well-being of all students. If you are struggling with personal stressors, mental health or substance use concerns that are impacting academic or daily life, please contact <u>Counseling and Psychiatric Services (CAPS)</u>, located in C4C, or call (303) 492-2277, 24/7.

SEXUAL MISCONDUCT, DISCRIMINATION, HARASSMENT AND/OR RELATED RETALIATION CU Boulder is committed to fostering an inclusive and welcoming learning, working, and living environment. University policy prohibits protected-class discrimination and harassment, sexual misconduct (harassment, exploitation, and assault), intimate partner abuse (dating or domestic violence), stalking, and related retaliation by or against members of our community on- and off-campus. The Office of Institutional Equity and Compliance (OIEC) addresses these concerns, and individuals who have been subjected to misconduct can contact OIEC at 303-492-2127 or email OIEC@colorado.edu. Information about university policies, reporting options, and OIEC support resources including confidential services can be found on the OIEC website. Please know that faculty and graduate instructors are required to inform OIEC when they are made aware of incidents related to these concerns regardless of when or where something occurred. This is to ensure the person impacted receives outreach from OIEC about resolution options and support resources. To learn more about reporting and support a variety of concerns, visit the Don't Ignore It page.

#### **RELIGIOUS HOLIDAYS**

Campus policy requires faculty to provide reasonable accommodations for students who, because of religious obligations, have conflicts with scheduled exams, assignments, or required attendance. Please communicate the need for a religious accommodation in a timely manner. In this class, *please let me know by Sept* 15th. See the <u>campus policy regarding religious</u> observances for full details.

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