#### UNIVERSITY OF COLORADO

# Department of Economics Economics 3070 Intermediate Microeconomic Theory

#### **Fall 2022**

**Professor:** Tania Barham **Office:** Economics 114

**Email:** tania.barham@colorado.edu **Lectures:** 1:25 -2:15pm: in-person **Office Hours:** ECON 114 M/W 2:15-3:15

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 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.

#### **Class Format**

This is an <u>in-person</u> class and will be taught in person except for instance when CU Boulder designates that in-person classes must be taught on-line. When classes go on-line, they will be taught synchronously (i.e. at the regular class time), at the zoom link above. When on-line, students must have their video on for the duration of the class period. I will decided in the first few classes if you must also have your mic on. Note CU has already designated classes to be online Jan. 10-21.

# **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 violates the honor code, so don't do it and don't ask someone to use your clicker if you are going to be absent from class.

# **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. If the class is on-line, you must have your video on to be counted as present. I may also give unannounced quizzes. Sections with your TA are also mandatory. I allow you to be absent for 4 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 15%

Participation/Attendance 10% (attendance in lectures and section)

Midterm Exam 1 20% Midterm Exam 2 25% Final Exam 30%

# **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 on the day they are due. 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 give exceptions and accept late homework. 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

WEEK	TOPIC	READINGS	ASSIGNMENTS DUE (Day of Week Due)
W1: Aug 22	Analyzing Economic Problems	Ch 1	
	Math Review	A.1-A.7	
W2: Aug 29	Supply and Demand Analysis	Ch 2	PS 0 Math Review (W)
	Preferences and Utility	Ch 3	
W3: Sept 5	Preferences and Utility	Ch 3	PS 1 – Ch 1-2 (W)
	Consumer Choice	Ch 4	
W4: Sept 12	Consumer Choice	Ch 4	PS 2 - Ch 3 (W)
	The Theory of Demand	Ch 5	
W5: Sept 19	The Theory of Demand	Ch 5	PS 3 – Ch 4 (W)
	The Theory of Demand	Ch 5	
W6: Sept 26	Inputs and Production Functions	Ch 6	PS 4 – Ch 5 (W)
	Inputs and Production Functions	Ch 6	
W7: Oct 3	Midterm Exam 1 (Ch 1-5)	W Oct 5	
	Inputs and Production Functions	Ch 6	
W8: Oct 10	Inputs and Production Functions	Ch 6	
	Costs and Cost Minimization	Ch 7	
W9: Oct 17	Costs and Cost Minimization	Ch 7	PS 5 Ch 6 (W)
	Cost Curves	Ch 8	. ,
W10: Oct 24	Cost Curves	Ch 8	PS 6 - Ch 7/8 <u>(F)</u>
	Perfectly Competitive Markets	Ch 9	
W11: Oct 31	Perfectly Competitive Markets	Ch 9	
	Perfectly Competitive Markets	Ch 9	
W12: Nov 7	Competitive Markets: Applications	Ch 10	PS 7 - Ch 9 (W)
W13: Nov 14	Midterm 2 Exam (Ch 1-9)	Wed Nov 16	
	Efficiency of Competitive Mrkt	Ch 16.4	
	FALL BREA	ΛK	
W14: Nov 28	Market Structure	Ch 13.1	PS 8 - Ch 10-16 (W)
	Monopoly and Monopsony	Ch 11	
W15: Dec 5	Tu: Behavioral Economics		
	Th: Office Hours		
Ton404in- Ei- 13	Final Exam Covers A		ı <b>c</b>
Tentative Final l Dec 13 4:30pm-7	Exam Schedule: please double che	ck this yourse	II.

# **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 <u>classroom behavior</u> policy, the <u>Student Code of Conduct</u>, and the <u>Office of Institutional Equity and Compliance</u>.

## **REOUIREMENTS FOR COVID-19**

As a matter of public health and safety, all members of the CU Boulder community and all visitors to campus must follow university, department and building requirements and all public health orders in place to reduce the risk of spreading infectious disease. CU Boulder currently requires COVID-19 vaccination and boosters for all faculty, staff and students. Students, faculty and staff must upload proof of vaccination and boosters or file for an exemption based on medical, ethical or moral grounds through the MyCUHealth portal.

The CU Boulder campus is currently mask-optional. However, if public health conditions change and masks are again required in classrooms, students who fail to adhere to masking 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 policy on classroom behavior and the Student Code of Conduct. If you require accommodation because a disability prevents you from fulfilling these safety measures, please follow the steps in the "Accommodation for Disabilities" statement on this syllabus.

If you feel ill and think you might have COVID-19, if you have tested positive for COVID-19, or if you are unvaccinated or partially vaccinated and have been in close contact with someone who has COVID-19, you should stay home and follow the further guidance of the Public Health Office (contacttracing@colorado.edu). If you are fully vaccinated and have been in close contact with someone who has COVID-19, you do not need to stay home; rather, you should selfmonitor for symptoms and follow the further guidance of the Public Health Office (contacttracing@colorado.edu).

# ACCOMMODATIONS FOR DISABILITIES

If you qualify for accommodations because of a disability, please email me your accommodation letter from Disability Services by *Sept. 20th* 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</u> website. 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.

#### 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 Honor Code may include, but are not limited to: 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 Student Conduct & Conflict Resolution (honor@colorado.edu); 303-492-5550). Students found responsible for violating the Honor Code will be assigned resolution outcomes from the Student Conduct & Conflict Resolution as well as be subject to academic sanctions from the faculty member. Additional information regarding the Honor Code academic integrity policy can be found on the Honor Code website.

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 sexual misconduct (harassment, exploitation, and assault), intimate partner violence (dating or domestic violence), stalking, protected-class discrimination and harassment, and related retaliation by or against members of our community on- and off-campus. These behaviors harm individuals and our community. The Office of Institutional Equity and Compliance (OIEC) addresses these policies, and individuals who believe they have been subjected to misconduct can contact OIEC at 303-492-2127 or email <a href="mailto:cureport@colorado.edu">cureport@colorado.edu</a>. Information about university policies, <a href="mailto:reporting options">reporting options</a>, and support resources can be found on the <a href="mailto:OIEC website">OIEC website</a>.

Please know that faculty and graduate instructors have a responsibility to inform OIEC when they are made aware of any issues related to these policies regardless of when or where they occurred to ensure that individuals impacted receive information about their rights, support resources, and resolution options. To learn more about reporting and support options for a variety of concerns, visit Don't Ignore It.

## 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.