# Intermediate Microeconomic Theory

The University of Colorado, Boulder Economics Department ECON-3070-020

Instructor: Michael Karas Lecture Location: GUGG 205

Email: michael.karas@colorado.edu Lecture Day/Time: MWF 11:15am - 12:05pm

Office Hours: Tues: 12:30pm - 2:00pm Recitation 021 Location: CASE W262

Wed: 12:30pm - 2:00pm

Office Location: ECON 306 Recitation 021 Day/Time: Mon 2:30pm - 3:20pm

Teaching Assistant: Yan Zhan Recitation 022 Location: MCOL E155

TA's Email: yan.zhan@colorado.edu Recitation 022 Day/Time: Wed 9:05am - 9:55am

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TA's Office Hours: Mon: 12:05pm - 2:05pm Term: Fall 2023

# COURSE DESCRIPTION

Explores theory and application of models of consumer choice, firm and market organization, and general equilibrium. Extensions include intertemporal decisions, decisions under uncertainty, externalities, and strategic interaction.

#### COURSE OBJECTIVES

Upon successful completion of this class a student should be able to:

- <u>Apply Intermediate Level Concepts</u>: Demonstrate a solid understanding of intermediate microeconomic concepts, including consumer choice theory, producer behavior, market equilibrium, and welfare analysis.
- Evaluate Consumer Choice: Evaluate consumer preferences, utility maximization, and demand theory, and utilize indifference curve analysis to understand how changes in prices and income impact consumer choices.
- Assess Producer Decision-making: Analyze producer decisions regarding profit maximization using concepts such as production functions, cost curves, and revenue curves.
- <u>Analyze Market Structures</u>: Analyze and differentiate between various market structures, including perfect competition, monopoly, monopolistic competition, and oligopoly, considering their implications for pricing, output, and economic efficiency.
- Employ Mathematical Techniques: Utilize mathematical techniques, such as calculus and algebra, to analyze and solve complex microeconomic problems, including optimization and equilibrium calculations.

# **PREREQUISITES**

A minimum grade of C- in ECON 2010. A minimum grade of C- in one of the following courses: ECON 1088, MATH 1081, MATH 1300, MATH 1310, MATH 1330, the two course sequence: APPM 1340/APPM 1345, APPM 1350, or FNCE 2010.

# **TEXTBOOK**(optional):

 $Microeconomics, 6th\ Edition,$  by Devid Besanko and Ronald Braeutigam (ISBN:978-1-119-55484-4), Wiley. 2020.

Students may optionally purchase the textbook. Owning the textbook is not required for any graded assignments in the course. The class will follow the textbook closely so students may find reviewing the chapters and practice problems useful when studying for exams.

# **GRADING**

Grading Scheme	
Attendance	5%
Recitations	10%
Problem Sets	20%
Midterm I	20%
Midterm II	20%
Final Exam	25%

Letter grades will be assigned with a "+/-" according to the following chart. Following guidelines set out by the Economics Department, the overall average grade of the course will be curved to a B-/C+ (around 80%). The size of this curve will not be known until after all components of the course have been graded.

Grade	Percentage
A	94-100%
A-	90 - 93.99%
B+	87 - 89.99%
В	83-86.99%
В-	80 - 82.99%
C+	77 - 79.99%
$\mathbf{C}$	73 - 76.99%
C-	70 - 72.99%
D+	67 - 69.99%
D	63-66.99%
D-	60 - 62.99%
$\mathbf{F}$	Below 60%

### **EXAMS**

Midterm I	October 4th (Wed)	Chapters 1-5
Midterm II	November 8th (Wed)	Chapters 6-10
Final Exam	December 17th (Sun)	Cumulative

The two midterms will be held during regular lecture time in the lecture classroom (GUGG 205) on October 4th and November 8th. The midterms will not be cumulative, but will consist of the content covered in the indicated chapters. The exams are structured with both multiple choice and short answer questions. There will be no make-up exams. If you miss a midterm due to a proven emergency or other unusual circumstances (you should inform me prior to each midterm), the weight of the midterm will be shifted to the final exam (e.g. if you miss a midterm I will re-weight the final exam to be 45% of your final grade). The final exam will be held in the lecture classroom (GUGG 205) on Sunday, December 17th. It will cumulative and consist of multiple choice and short answer questions. Moverover, you must take the final exam in this course: there will no make-up final exam.

# **ATTENDANCE**

5% of your final grade will be determined by attendance. At the beginning of each lecture I will have an attendance sign-in sheet at the front of class. As you come into class please sign your name so you get credit for attendance. If you arrive late to class, you must wait until the end of lecture to sign-in. In order to allow for some leeway, you only need to be counted for 85% of the total lectures to receive the full 5% for your attendance grade. If you attend fewer than 85% of the total lectures, your attendance grade will be the proportion of the lectures you did attend.

# PROBLEM SETS

Problem sets will serve as a primary component of the course for you to test your knowledge of the material before exams. You will receive feedback on your answers from the problem sets. They will be due one week after they are assigned. You are allowed to work with other students in the course on the problem sets, but each student must turn in their own set of answers. A physical copy of your answers must be turned in during the lecture that they are due. Late problem sets will not be accepted. There will be 6 total problem sets through the semester. In order to allow for some leeway, your lowest graded problem set will be dropped.

# RECITATION

Starting the second week of the semester your will have a weekly recitation session with the TA for this course. The goal of recitation is for you to review, practice, and have an opportunity to ask questions about the material covered in the course. Your TA will determine exactly how recitations are run and how they will be graded, however attendance will be a primary component of the final recitation grade.

#### COMMUNICATION

Outside of lectures and office hours, the optimal way to contact me would be through email. Please use your colorado.edu account to email me because sometimes other email accounts are filtered into my spam folder. Please allow 24 hours for a response during the week, and 48 hours on weekends. I am not allowed, by law, to discuss grades with you or anyone else via email. Please do not email me with questions about your grades: instead, see me during office hours.

# MISSED ASSIGNMENTS

In general, late assignments will not be accepted. <u>In the case that you miss an assignment due to an extreme illness</u>, I will shift the weight of the missed one to subsequent assignments. If you miss a midterm exam the weight will be shifted to the final exam. Proper documentation will be required for all missed assignments and exams.

#### **EXAM POLICIES**

Exams are the only components of the final grade for which collaboration is explicitly prohibited. If you are caught cheating you will receive a 0 on the associated assignment. Non-graphing calculators are allowed to be used during exams; use of any other device will be considered cheating.

# **ELECTRONICS**

Cell phone use is not permitted during class. If there is an emergency requiring the use of a cell phone please step outside the classroom. The use of tablets and laptops for educational purposes (i.e. lecture slides, Canvas, note taking) is permitted; however, I reserve the right to disallow their use if electronics are not being used appropriately.

# TENTATIVE COURSE SCHEDULE

Week	Dates	Chapters Covered	Special Notes
Week 1	Aug 28, Aug 30, Sept 1	Ch. 1 & 2	
Week 2	Sept 6, Sept 8	Ch. 2 & 3	Labor Day Sept 4
Week 3	Sept 11, Sept 13, Sept 15	Ch. 3 & 4	Sept 15 Class Canceled
Week 4	Sept 18, Sept 20, Sept 22	Ch. 4 & 5	PS1 due Sept 20
Week 5	Sept 25, Sept 27, Sept 29	Ch. 5 & 6	PS2 due Spet 27; Sept 29 Class on Zoom
Week 6	Oct 2, Oct 4, Oct 6	Ch. 6 & 7	Midterm I Oct 4
Week 7	Oct 9, Oct 11, Oct 13	Ch. 7	
Week 8	Oct 16, Oct 18, Oct 20	Ch. 8 & 9	PS3 due Oct 18
Week 9	Oct 23, Oct 25, Oct 27	Ch. 9 & 10	
Week 10	Oct 30, Nov 1, Nov 3	Ch. 10 & 11	PS4 due Nov 1
Week 11	Nov 6, Nov 8, Nov 10	Ch. 11 & 12	Midterm II Nov 8
Week 12	Nov 13, Nov 15, Nov 17	Ch. 13	
Week 13			Thanksgiving Break
Week 14	Nov 27, Nov 29, Dec 1	Ch. 14 & Ch. 15	PS5 due Nov 29
Week 15	Dec 4, Dec 6, Dec 8	Ch. 15 & Ch. 16	PS6 due Dec 6
Week 16	Dec 11, Dec 13	Ch. 17	Dec 15 Reading Day
Week 17			Sun, Dec 17 Final Exam

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

# REQUIREMENTS FOR INFECTIOUS DISEASES

Members of the CU Boulder community and visitors to campus must follow university, department, and building health and safety requirements and all public health orders to reduce the risk of spreading infectious diseases.

The CU Boulder campus is currently mask optional. However, if masks are again required in classrooms, students who fail to adhere to masking requirements will be asked to leave class. Students who do not leave class when asked or who refuse to comply with these requirements will be referred to Student Conduct Conflict Resolution. Students who require accommodation because a disability prevents them from fulfilling safety measures related to infectious disease will be asked to follow the steps in the "Accommodation for Disabilities" statement on this syllabus.

For those who feel ill and think you might have COVID-19 or if you have tested positive for COVID-19, please stay home and follow the further guidance of the Public Health Office. For those who 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.

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

Disability Services determines accommodations based on documented disabilities in the academic environment. If you qualify for accommodations because of a disability, submit your accommodation letter from Disability Services to your faculty member in a timely manner so your needs can be addressed. Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance.

If you have a temporary medical condition or required medical isolation for which you require accommodation, please let me know ahead of the scheduled lecture or recitation. I will handle each situation on a case by case basis, but the most common accommodation will be excusing your attendance for the recitations that you must miss so they do not count against your attendance grade. Also 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 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.

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 https://www.colorado.edu/sccr/honor-codeHonor Code will be assigned resolution outcomes from the Student Conduct Conflict Resolution as well as be subject to academic sanctions from the faculty member. Visit https://www.colorado.edu/sccr/honor-codeHonor Code for more information on the academic integrity policy.

# SEXUAL MISCONDUCT, DISCRIMINATION, HARRASMENT, 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 violence (dating or domestic violence), stalking, 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 concerns, and individuals who believe they have been subjected to misconduct can contact OIEC at 303-492-2127 or email cureport@colorado.edu. Information about university policies, reporting options, and support resources can be found on the OIEC website.

Please know that faculty and graduate instructors have a responsibility to inform OIEC when they are made aware of incidents related to these policies regardless of when or where something occurred. This is to ensure that individuals impacted receive an outreach from OIEC about their options for addressing a concern and the support resources available. To learn more about reporting and support resources for a variety of issues, 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. In this class, please let me know ahead of any conflict with class assignments and tests and we can discuss how to rearrange those to accommodate your religious observance.

See the campus policy regarding religious observances for full details.

# 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 Counseling and Psychiatric Services (CAPS) located in C4C or call (303) 492-2277, 24/7.

Free and unlimited telehealth is also available through Academic Live Care. The Academic Live Care site also provides information about additional wellness services on campus that are available to students.