ECON 3070-020: Intermediate Microeconomic Theory Fall 2021

Time: TTH; 02:20 PM - 03:35 PM Location: ECON 117 Office Hours: Tuesday: 9:30 – 11:00 AM Instructor: Professor Yongmin Chen Website: https://www.colorado.edu/faculty/chen-yongmin/

<u>Course Description:</u> 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, 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. Of particular importance is learning how to convert intuitive statements into mathematical representations.

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

<u>Grading</u>: Grades are based on attendance and in-class practices (15%), midterm exam 1 (25%), midterm exam 2 (25%), and a final exam (35%). The final exam will be comprehensive, but will focus primarily on untested content from the final third of the semester.

Homework assignments are important for you to review concepts and solve problems. You should complete them on time, even though they will not be collected and graded. Homework solutions will be discussed in recitations. Questions similar to those in the homework may appear in exams.

You are expected to attend classes regularly. There will be regular in-class practices. Scores on these practices, which also include attendance points, will comprise 15% of each student's grade. In-class practices cannot be made up, but each student's three lowest scores on them over the course of the semester will be dropped, to take it into account that you may occasionally miss class due to health-related issues.

<u>How to Study Effectively in this Course:</u> I suggest that you **read the assigned materials before each lecture**, so that you are prepared. Take notes during the lecture. After each class, **have a quick review within the same day**. Complete each homework before the start of the next topic.

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.

Topics	<u>Readings</u>
1. Introduction to Microeconomic Analysis Week 1 (8/24, 8/26): Lectures 1, 2	Ch 1; Ch 2.
Hw 1: pp. 21-22: #1.2, 1.9; pp. 70-73: #2.1, 2.3, 2.8, 2.15, 2.16. Target date for completing Hw 1: Tuesday, 8/31	
rarget date for completing fiw 1. ruesday, 6/51	

2. Consumer Preferences and Utility

Ch 3.

Week 2 (8/31, 9/2): Lectures 3, 4 Hw 2: pp. 102-104: #3.10, 3.13, 3.15, 3.16, 3.17, 3.18, 3.21. Target date for completing Hw 2: Tuesday, 9/7

 3. Consumer Choice
 Ch 4.

 Week 3 (9/7): Lectures 5
 Hw 3: pp. 140-145: #4.1, 4.3, 4.5, 4.6, 4.8, 4.9, 4.18.

 Target date for completing Hw 3: Tuesday, 9/14

 4. Individual and Market Demands
 Ch 5

 Week 3 (9/9) and Week 4 (9/14, 9/16): Lectures 6, 7, 8.
 Hw 4: pp. 200-203: #5.6, 5.7, 5.12, 5.18, 5.19, 5.23, 5.24.

 Target date for completing Hw 4:: Tuesday, 9/21

Review Class: Week 5, Tuesday, 9/21.

EXAM 1 (Week 5): Thursday, September 23, at normal class time.

 5. Inputs and Production
 Ch 6.

 Week 6 (9/28, 9/30,): Lectures 9, 10
 Hw 5: pp. 243-247: #6.2, 6.5, 6.9, 6.12, 6.13, 6.15, 6.17, 6.19, 6.20.

 Target date for completing Hw 5: Tuesday, 10/5

 6. The Cost of Production
 Ch 7. Ch. 8

 Week 7 (10/ 5, 10/7): Lectures 11, 12
 Hw 6: pp. 281-284: #7.1, 7.4, 7.5, 7.9, 7.20; pp. 323-326: 8.5, 8.6.

 Target date for completing Hw 6:: Tuesday, 10/12

 7. Perfectly Competitive Markets
 Ch 9, Ch 10

 Week 8 (10/12, 10/14), Week 9 (10/19): Lectures 13, 14, 15
 Hw 7: pp. 382-387: #9.1, 9.6, 9.7, 9.9, 9.11, 9.15, 9.18;

 pp. 436-438: #10.1, 10.4, 10.7, 10.9, 10.13(a,b,c,d)
 Target date for completing Hw 7: Thursday, 10/21

8. Monopoly Week 9 (10/21) Lectures 16 Ch 11 (442-478)

Week 10: Review class (10/26)

EXAM 2 (Week 10): Thursday, 10/28, at normal class time.

8. Monopoly (continue)
Week 11 (11/2, 11/4): Lectures 17, 18
Hw 8: pp. 485-488: #11.1, 11.2, 11.3, 11.5, 11.6, 11.10, 11.13;
pp. 527-529: #12.1, 12.2, 12.3, 12.4, 12.10
Target date for completing Hw 8: Tuesday, 11/9

Ch 11 (442-478), Ch 12

 9. Market Structure and Competition
 Ch. 13

 Week 12 (11/9, 11/11): Lectures 19, 20

 Hw 9: pp. 568: #13.2, 13.4, 13.5.

 Target date for completing Hw 9: Tuesday, 11/16

 10. Game Theory and Strategic Behavior
 Ch. 14

 Week 13 (11/16, 11/18): Lectures 21, 22

 Hw 10: pp. 601-606: #14.1, 14.2, 14.3, 14.4, 14.5, 14.11, 14.12.

 Target date for completing Hw 10: Tuesday, 11/30

Week 14: Fall Break

10. Game Theory and Strategic Behavior (Continue)Ch. 14Week 15 (11/30, 12/2): Lectures 23, 24

11. Decisions under uncertaintyCh. 15Week 16 (12/7, 12/9): Lecture 26; review class for the final examPractice questions for Topic 11 and for the final exam.

FINAL EXAM: TBA

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 <u>classroom behavior</u> and the <u>Student Conduct & Conflict Resolution policies</u>.

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 all public health orders in place to reduce the risk of spreading infectious disease. 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 <u>Student Conduct and Conflict Resolution</u>. For more information, see the policy on <u>classroom behavior</u> and the <u>Student Code of Conduct</u>. 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.

As of Aug. 13, 2021, CU Boulder has returned to requiring masks in classrooms and laboratories regardless of vaccination status. This requirement is a temporary precaution during the delta surge to supplement CU Boulder's COVID-19 vaccine requirement. Exemptions include individuals who cannot medically tolerate a face covering, as well as those who are hearing-impaired or otherwise disabled or who are communicating with someone who is hearing-impaired or otherwise disabled and where the ability to see the mouth is essential to communication. If you qualify for a mask-related accommodation, please follow the steps in the "Accommodation for Disabilities" statement on this syllabus. In addition, vaccinated instructional faculty who are engaged in an indoor instructional activity and are separated by at least 6 feet from the nearest person are exempt from wearing masks if they so choose.

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.

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 <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.

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 academic integrity policy. 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 the Honor Code (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 on the Honor Code 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 or against 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 email cureport@colorado.edu. Information about OIEC, university policies, reporting options, and the campus resources can be found on the OIEC website.

Please know that faculty and graduate 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 their rights, support resources, and reporting options.

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, a student should notify the faculty in writing within the first two weeks of the semester if there is such a conflict. See the campus policy regarding religious observances for full details.