ECON 3070: Intermediate Microeconomic Theory Fall 2022

Instructor: Professor Yongmin Chen

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Office Hours: Wednesday, 11:15 AM - 3:15 PM

<u>Course Description:</u> This course provides an introduction to microeconomic theory. The content includes consumer choice of products, firm production decisions, equilibrium market prices and quantities, and game theory with business applications. The impact of government policies on consumer and producer welfare will also be discussed. Emphasis will be placed on working with formal economic models and developing the ability to analyze economic issues.

<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 or 6th 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.

Grading: Grades are based on homework (15%), class participation (5%), midterm exam 1 (20%), 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. 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 missed examine will be filled in by reweighting future exams (e.g., if you miss the second exam, I will reweight the final).

Homework assignments are important for you to review concepts and solve problems. You should complete them on time. Assignments handed in at the beginning of class or earlier are considered on time. Late assignments (even those that are handed in after the beginning of class) 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, you do not need to let me know if you are not handing in a homework assignment for whatever the reason. 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. Homework solutions will be discussed in recitations. Questions similar to those in the homework may appear in exams.

You are required to attend classes regularly. Attendance for two of the first three classes is mandatory or you may be dropped from the class. I will randomly check class attendance and also pay attention to your class participation. There is no need for you to inform me if you occasionally miss a class due to health or other reasons---your participation grade will not be affected if you miss no more than 4 classes. But you will receive 0 for the participation grade if you miss 5 or more classes. If you miss class, it is your responsibility to catch-up on any missed material from other students in the class.

How to Study Effectively in this Course: 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 on time. Try to get all questions for each class/week answered without delay.

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.

<u>Topics</u> Readings

1. Introduction to Microeconomic Analysis

Week 1 (8/23, 8/25): 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.

Due: Tuesday, 8/30, at the beginning of class.

2. Consumer Preferences and Utility

Ch 3.

Week 2 (8/30, 9/1): Lectures 3, 4

Hw 2: pp. 102-104: #3.10, 3.13, 3.15, 3.16, 3.17, 3.18, 3.21.

Due: Tuesday, 9/6, at the beginning of class.

3. Consumer Choice

Ch 4.

Week 3 (9/6): Lectures 5

Hw 3: pp. 140-145: #4.1, 4.3, 4.5, 4.6, 4.8, 4.9, 4.18.

Due: Tuesday, 9/13, at the beginning of class.

4. Individual and Market Demands

Ch 5

Week 3 (9/8) and Week 4 (9/13, 9/15): Lectures 6, 7, 8.

Hw 4: pp. 200-203: #5.6, 5.7, 5.12, 5.18, 5.19, 5.23, 5.24.

Due: Tuesday, 9/20, at the beginning of class.

Review Class: Week 5, Tuesday, 9/20.

EXAM 1 (Week 5): Thursday, September 22, at normal class time.

5. Inputs and Production

Ch 6.

Week 6 (9/27, 9/29,): 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.

Due: Tuesday, 10/4, at the beginning of class.

6. The Cost of Production

Ch 7. Ch. 8

Week 7 (10/4, 10/6): 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.

Due: Tuesday, 10/11, at the beginning of class.

7. Perfectly Competitive Markets

Ch 9, Ch 10

Week 8 (10/11, 10/13), Week 9 (10/18): 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)

Due: Thursday, 10/20, at the beginning of class.

8. Monopoly

Ch 11 (442-478)

Week 9 (10/20) Lectures 16

Week 10: Review class (10/25)

EXAM 2 (Week 10): Thursday, 10/27, at normal class time.

8. Monopoly (continue)

Ch 11 (442-478), Ch 12

Week 11 (11/1, 11/3): 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

Due: Tuesday, 11/8, at the beginning of class.

9. Market Structure and Competition

Ch. 13

Ch. 14

Week 12 (11/8, 11/10): Lectures 19, 20

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

Due: Tuesday, 11/10, at the beginning of class.

10. Game Theory and Strategic Behavior

Week 13 (11/15, 11/17): Lectures 21, 22

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

Due: Tuesday, 11/29, at the beginning of class.

Week 14: Fall Break

10. Game Theory and Strategic Behavior (Continue) Ch. 14

Week 15 (11/29, 12/1): Lectures 23, 24

11. Decisions under uncertainty

Ch. 15

Week 16 (12/6, 12/8): Lecture 25; review for the final exam

FINAL EXAM: Indicated on the Canvas page.

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>.

Requirements 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 self-monitor for symptoms and follow the further guidance of the Public Health Office (contacttracing@colorado.edu).

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. 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 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 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 <u>campus policy regarding religious observances</u> for full details.