

ECON 7030: MICROECONOMIC THEORY 2

Spring 2024

Instructor: Professor Yongmin Chen
Office: ECON 108
Class Time: MW 11:00AM-12:15PM
Classroom: ECON 119
Office Hours: W 1:00-2:30PM
Yongmin.Chen@colorado.edu
<https://www.colorado.edu/faculty/chen-yongmin/>

Course Description: This is the second graduate course in microeconomic theory. It consists of two main parts: i) non-cooperative game theory; and ii) market equilibrium and market imperfections. Together with ECON 7010 (Microeconomic Theory 1), this course aims to provide students with a solid understanding of the fundamentals of microeconomic analysis.

Course Materials: The textbook is *Microeconomic Theory*, by Mas-Colell, Whinston, and Green. I plan to cover most chapters in Parts II and III of the book.

Grading: Grades are based on 6 problem set quizzes (30%) during recitations, a midterm exam (30%), and a final exam (40%). You are encouraged to form study groups to discuss homework and lecture materials. Quizzes and exams will all be in closed-book forms.

Problem Sets: There will be regular assignment of problem sets. You should start working on the relevant problem set as I start each topic. The TA will hold recitations to discuss problem sets. I emphasize that solving these problems is crucial for you to learn the course material, even though problem sets will not be collected. Quizzes will (mainly) use questions from the problem sets.

Lecture Topics: Below is a tentative plan for the lectures. Changes to the plan will be announced in class during the semester and you are responsible for updating the information.

Topic 1 Basics of Non-cooperative Games
(Lectures 1-2) Readings: Ch.7.
 Problem Set 1: 7.C.1, 7.D.1, 7.D.2, 7.E.1.

Topic 2 Simultaneous-Move Games

(Lectures 3-6) Readings: Ch. 8: 8A-8E.

Problem Set 2: 8.B.1, 8.B.2, 8.B.6, 8.B.7.

Quiz 1

Problem Set 3: 8.D.2, 8.D.4, 8.D.5, 8.D.6, 8.E.2, 8.E.3.

Quiz 2

Topic 3 Dynamic Games

(L 7-10) Readings: Ch. 9: 9A-9C

Problem Set 4: 9.B.2, 9.B.9, 9.B.10, 9.B.11, 9.C.2, 9.C.7.

Quiz 3

Topic 4 Externalities and Public Goods

(L 11-13) Readings: Ch. 11.

Problem Set 5: 11.B.3, 11.B.4, 11.B.5, 11.C.1, 11.D.1, 11.D.6.

Quiz 4

Midterm Exam Monday, March 11, during class time.

Topic 5 Market Power: Static Models of Monopoly and Oligopoly

(L 14-16) Readings: Ch. 12: 12A-12C.

Problem Set 6: 12.B.4, 12.B.5, 12.B.9, 12.C.3, 12.C.9.

March 25-29: Spring Break

Topic 6 Dynamic Models of Imperfect Competition and Entry

(L 17-18) Readings: Ch. 12: 12D-12E.

Problem Set 7: 12.C.18, 12 D.2., 12 E.4., 12 E.7.

Quiz 5

Topic 7 Adverse Selection, Signaling, and Screening

(L 19-22) Readings: Ch. 13

Problem Set 8: 13.B.2, 13.B.4, 13.C.1, 13.C.5.

Quiz 6

Topic 8 The Principal-Agent Problem and Applications
(L 23-26) Readings: Ch. 14
 Problem Set 9: 14.B.4, 14.C.3, 14.C.7, 14.C.8.

Final Exam: Sunday, May 5, 7:30-9:00pm.

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 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 [guidance of the Centers for Disease Control and Prevention \(CDC\) 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 [guidance of the CDC for masking and testing](#).

Accommodation 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 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 [Disability Services website](#). Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance. If you have a temporary medical condition, see [Temporary Medical Conditions](#) on the Disability Services website. If you have a required medical isolation for which you require adjustment, please notify me and the TA ASAP to allow the for proper arrangements.

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 [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. Visit [Honor Code](#) for more information on the academic integrity policy.

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 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 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 must 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 outreach from OIEC about resolution options and support resources. To learn more about reporting and support for a variety of concerns, visit the [Don't Ignore It](#) page.

Religious Accommodations

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 the first two weeks of the semester. 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.