

ECON 7030: MICROECONOMIC THEORY 2

Spring 2023

Instructor: Professor Yongmin Chen
Office: ECON 108
Class Time: MW 2:15-3:30PM
Classroom: ECON 5
Office Hours: W 12:30-2:00PM
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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 material. 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 and graded. Quizzes will 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
(L 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 7-11) 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 12-14) 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 6, during class time.
- Topic 5 Market Power: Static Models of Monopoly and Oligopoly
(L 15-17) Readings: Ch. 12: 12A-12C.
 Problem Set 6: 12.B.4, 12.B.5, 12.B.9, 12.C.3, 12.C.9.
- March 27-31: Spring Break
- Topic 6 Dynamic Models of Imperfect Competition and Entry
(L 18-19) 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 20-23) Readings: Ch. 13
 Problem Set 8: 13.B.2, 13.B.4, 13.C.1, 13.C.5.
 Quiz 6

No class on Wed., April 19

Topic 8 The Principal-Agent Problem and Applications
(L 24-28) Readings: Ch. 14
 Problem Set 9: 14.B.4, 14.C.3, 14.C.7, 14.C.8.

Final Exam:

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 [classroom behavior](#) policy, the [Student Code of Conduct](#), and the [Office of Institutional Equity and Compliance](#).

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). {Faculty: insert

your procedure here for students to alert you about absence due to illness or quarantine. Because of FERPA student privacy laws, do not require students to state the nature of their illness when alerting you. Do not require "doctor's notes" for classes missed due to illness; campus health services no longer provide "doctor's notes" or appointment verifications.}

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 [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.

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 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 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.