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# UNIVERSITY OF COLORADO BOULDER

## INTERMEDIATE MICROECONOMIC THEORY

### ECON 3070-581 SYLLABUS, SUMMER 2020

INSTRUCTOR: MINGHUI LI

Email [minghui.li@colorado.edu](mailto:minghui.li@colorado.edu)

Office Hours

- **Online Office Hours: Wednesday and Thursday 10-11:30am or by appointment via <https://cuboulder.zoom.us/j/9151694084>.**

TEACHING ASSISTANT: YUWEI JIA

Email [yuwei.jia@colorado.edu](mailto:yuwei.jia@colorado.edu)

Office Hours

- **Online Office Hours: Monday, Wednesday and Friday 2:00-3:00pm or by appointment via <https://cuboulder.zoom.us/my/yuwei.jia>.**

## COURSE WEBSITE

Canvas is our class website:

- Login using your University of Colorado Boulder identikey and password  
<https://canvas.colorado.edu/>
- Under Course List, click “ECON 3070-581: Intermediate Microeconomic Theory”
- Note: all email correspondence will be through your CU Boulder email address.
  - *Do not use the Canvas email or messages, it is not checked.*

## COURSE DESCRIPTION

*From General Catalog: 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.*

This course provides a comprehensive introduction to microeconomic theory, focusing on the behavior of households, firms, and the interaction of these agents in the marketplace. Microeconomic theory is used to explain how individuals decide what and how much to buy and how firms decide what and how much to sell under various economic environments (e.g., market structures, taxation, regulation). Extensions and applications will include market failures such as externalities and public goods, investments and net present value, and risk.

## COURSE PREREQUISITES

Requires prerequisite courses of ECON 2010 (Principles of Microeconomics)

AND

ECON 1088 or MATH 1081 or MATH 1300 or MATH 1310 or APPM 1350 (all min grade C-)  
(Math/Calculus courses)

AND

Restricted to students with 22-180 units completed.

## COURSE OBJECTIVES

By the end of the course you should be able to:

- Identify the fundamentals of microeconomic theory
- Explain how consumers make decisions in the face of scarcity and how these decisions vary in response to changes in the economic environment.
- Explain how firms make decisions in the face of scarcity and how these decisions vary in response to changes in the economic environment.
- Compare consumer and producer behavior resulting from the different types of market structure.
- Apply algebraic, graphical and calculus tools to microeconomic theory
- Apply microeconomic principles, theories and models to critically analyze and explain economic situations encountered in the real world that involve microeconomics
- Communicate the results of economic analysis in a clear and professional way

## REQUIRED COURSE MATERIALS

**Textbook (required):** Microeconomics with MyLab, 9th Edition, by Pindyck and Rubinfeld, Pearson Publishing, ISBN 9780134153988. Students are required to have access to MyLab (which includes an eBook) at a minimum and can optionally choose to purchase a paper text. MyLab is where you will read your textbook and complete some graded assignments. You will access MyLab through our course website, Canvas.

**Course Website:** <https://canvas.colorado.edu/> (Canvas) Grades and any further additional readings will be posted on Canvas. Please check Canvas frequently for any relevant notifications/changes that may occur throughout the course.

## COURSE PRESENTATION AND PROCEDURES

There will be 16 modules corresponding to the 8 weeks of the course. You should proceed through two modules per week, which will be comprised of readings from the course texts, supplemental class notes, graded discussion questions, homework assignments and quizzes, exams, and various outside sources of information such as additional readings and video content, among other content.

## COURSE OUTLINE

Review the separate weekly class schedule found on Canvas under “Syllabus” link.

## EVALUATION AND GRADING

Course grades will be determined by the completion of assignments, exams, and discussions, as shown below:

| <b>Assignment*</b>              | <b>Points per Assignment</b> | <b>Frequency</b> | <b>GRADE POINTS</b> | <b>GRADE PERCENTAGE</b> |
|---------------------------------|------------------------------|------------------|---------------------|-------------------------|
| Early-Module Assignment         | (5)                          | * (10)           | = 50                | 5%                      |
| Discussion Postings             | (30)                         | * (4)            | = 120               | 12%                     |
| Problem Sets                    | (30)                         | * (11)           | = 330               | 33%                     |
| Proctored Midterm Exam          | (200)                        | * (1)            | = 200               | 20%                     |
| Proctored Cumulative Final Exam | (300)                        | * (1)            | = 300               | 30%                     |
| <b>TOTAL</b>                    |                              |                  | <b>= 1000</b>       | <b>100%</b>             |

\*Keep a copy of all work created for the course, including work submitted through Canvas.

## COURSE GRADING CRITERIA

| <b>Grade</b> | <b>Percentage Grade</b> | <b>Equivalent Points</b> | <b>Indicates</b> |
|--------------|-------------------------|--------------------------|------------------|
| <b>A</b>     | 93-100                  | 930 – 1000               | Excellent        |
| <b>A-</b>    | 90-92.99                | 900 – 929                |                  |
| <b>B+</b>    | 87-89.99                | 870 – 899                |                  |
| <b>B</b>     | 83-86.99                | 830 – 869                | Above Average    |
| <b>B-</b>    | 80-82.99                | 800 – 829                |                  |
| <b>C+</b>    | 77-79.99                | 770 – 799                |                  |
| <b>C</b>     | 73-77.99                | 730 – 769                | Average          |
| <b>C-</b>    | 70-72.99                | 700 – 729                |                  |
| <b>D+</b>    | 67-69.99                | 670 – 699                |                  |
| <b>D</b>     | 63-67.99                | 630 – 669                | Below Average    |
| <b>D-</b>    | 60-62.99                | 600 – 629                |                  |
| <b>F</b>     | 0-59                    | 600 or lower             | Failure          |

*There is +/- grading in this class.*

**Early-module assignments** (50 POINTS) – There will be twelve (12) 5-point early-module assignments. This early-module work is designed to remind you of math and Principles of Microeconomic concepts necessary to be successful in that module. Early-module work are open book and open note. You have 2 attempts at each early-module assignment and the lowest two (2) are dropped from your final grade calculation. Early-module work will be submitted through Canvas or MyLab.

**Discussion posting or writing assignments** (120 POINTS) – There will be four (4) 30-point discussion postings or writing assignments. The discussion will occur asynchronously; I will post a discussion

question and you will respond to the questions at your convenience prior to the due date. See the class schedule for due dates of posts and comments. Discussions are open book and open note. Discussions will be submitted through Canvas.

**Problem Sets** (330 POINTS) – There will be twelve (12) 30-point problem sets. The format of the problem sets will be multiple choice, calculations, and short answers and will be open book and open notes. Your lowest one (1) problem set is dropped from your final grade calculation. Problem sets will be submitted through Canvas or MyLab.

**Exams** (500 POINTS) – There will be two (2) exams. The proctored midterm exam is worth 200 points and the proctored cumulative final exam is worth 300 points. The format of the exam will be multiple choice and calculations and will be closed book. The exams are completed on Canvas or MyLab in a proctored setting.

**This course requires proctored examinations.** The Department of Economics at the University of Colorado Boulder requires students to use the online proctoring tool, Proctorio, for their proctored exams. Proctorio allows students to complete an assessment at a remote location, such as their home, while helping to ensure the integrity of the exam. There is no cost to use this tool.

- Please review [Proctorio Minimum System Requirements](#) to ensure you have the correct hardware and software to use this tool.
- Note that you are required to have a computer with a functioning webcam and microphone or have access to a computer with a functioning webcam microphone to complete your exams.

See Canvas for detailed information about proctoring. If you are in a rural area or on a military base, you may need to be approved to use a person as a proctor and information is provided on Canvas for this approval process.

## EXTRA CREDIT

Up to 50 points of extra credit may be available (= maximum 5% of the course grade).

- Practice Problem sets on MyLab. Each time you complete an assigned Practice Problem set by the due date, you will receive up to 3 points extra credit, up to 36 points total (= 12 Practice Problem sets \* 3 points).
- An additional 14 points extra may be available during the semester for completing certain activities, such as listening and commenting on a podcast, completing special activities, etc. These extra credit opportunities will be determined by the instructor and announced in on Canvas.

## EXPECTATIONS OF INSTRUCTOR

I take my role as your instructors very seriously, and, in fact, I care about how well you do in this course and that you have a satisfying, rewarding experience. To that end, it is our commitment to you to respond individually to the work you submit in this class and to return your work in a timely manner. If, however, due to unforeseeable circumstances, the grading of your work takes longer than the times I have listed here, I will keep you informed of my progress and make every effort to return your work with feedback as soon as I can.

**Communication** – I am nice and I want you to succeed. Do not hesitate to contact me about anything. Yes, anything.

### E-mail

Instructor Minghui Li [minghui.li@colorado.edu](mailto:minghui.li@colorado.edu)

- All e-mail sent to me should contain the following: Course Name and Number (i.e., ECON 3070), Your Name, Short Description of your question. I will respond to email within 12-18 hours, but usually within 2-4 hours. I always respond to email. If you have not had a response within 18 hours I did not receive the email. Be sure to use your CU email address because sometimes gmail and yahoo email accounts are filtered into my spam folder.

### Office Hours

- Off campus Office Hours: Wednesday and Thursday 10:00am-11:30am via <https://cuboulder.zoom.us/j/9151694084>

### General Course Announcements

- Announcements: Please check the “announcements” section on Canvas often.

## COURSE POLICIES

### NETIQUETTE

All students should be aware that their behavior impacts other people, even online. I hope that we will all strive to develop a positive and supportive environment and will be courteous to fellow students and your instructor. Due to the nature of the online environment, there are some things to remember.

1. Always think before you write. In other words, without the use of nonverbals with your message, your message can be misinterpreted. So please think twice before you hit submit.
2. Keep it relevant. There are places to chat and post for fun everyday stuff. Do not stray from the discussion in the assigned questions.
3. Never use all caps. This is the equivalent of yelling in the online world. It is not fun to read. Only use capital letters when appropriate.
4. Make sure that you are using appropriate grammar and structure. In other words, I don't want to see anyone writing “R U” instead of “are you”. There are people in the class that may not understand this type of abbreviation, not to mention it does nothing to help expand your writing and vocabulary skills. Emoticons are fine as long as they are appropriate. A smile 😊 is welcome, anything offensive is not.
5. Treat people the same as you would face-to-face. In other words, it is easy to hide behind the computer. In some cases, it empowers people to treat others in ways they would not in person. Remember there is a person behind the name on your screen. Treat all with dignity and respect and you can expect that in return.
6. Respect the time of others. This class is going to require you to work in groups. Learn to respect the time of others in your group and your experience will be much better. Always remember that you are not the only person with a busy schedule, be flexible. Do not procrastinate! You may be one that works best with the pressures of the deadline looming on you, but others may not be that way. The same is true for the reverse. The key to a successful group is organization, communication and a willingness to do what it takes to get it done.

Website: <http://www.albion.com/netiquette/corerules.html>

*Compiled by Melissa Landin, Instructor, Dept. of Communication, Inver Hills Community College,  
mlandin@inverhills.edu*

## TECHNOLOGY REQUIREMENTS AND SUPPORT

You are required to have a working webcam and audio on your computer for the proctored examinations.

Canvas technical support.

- Computer specifications: Visit the official [Canvas Computer Specifications Page](#) for the latest list of recommended system requirements.
- Recommended browsers: Visit the [Supported Browsers Page](#) for the detailed list of internet browsers in Windows, MacOS, iOS and Android.
- If you are experiencing issues with Canvas please contact:
  - CU Boulder's Help desk at 303-735-4357 (5-HELP) or [help@colorado.edu](mailto:help@colorado.edu). 5-Help will answer your call: Monday through Friday from 7:30 a.m. to 7:00 p.m., Saturday and Sunday from noon to 6:00 p.m., Closed during [University Holidays](#)
  - On your computer, click the “help” (?) icon on the left side of Canvas, once logged in
  - Within the Canvas App, you can search the Canvas support guides, Report a Problem or chat with Canvas Support 24 hours a day, 7 days a week.
- MyLab tech support:
  - [https://help.pearsoncmg.com/ccng/ccng\\_instr/ccng\\_xmel\\_instr\\_help\\_support\\_bridge.html](https://help.pearsoncmg.com/ccng/ccng_instr/ccng_xmel_instr_help_support_bridge.html) or <https://support.pearson.com/getsupport/s/>

## POLICY ON DUE DATES

Each module you will complete a series of critical thinking questions that reflect material from the various delivery formats and required readings. It is your responsibility to turn in each assignment on the required date. Late assignments are not accepted for problem sets or exams. If the early-module assignments or discussion postings are turned in late, they will be reduced by one full letter grade for each 12-hours late. The exceptions that may be considered is due to sickness, university excused function, or circumstances beyond the students’ control. The instructor reserves the sole right to determine what grounds constitutes a reasonable excuse for missing or submitting a late work assignment and the right to require the student to submit proper verification of such excuse.

## 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](mailto:dsinfo@colorado.edu) for further assistance. If you have a temporary medical condition or injury, see [Temporary Medical Conditions](#) under the Students tab on the Disability Services website.

## CLASSROOM BEHAVIOR

Students and faculty each have responsibility for maintaining an appropriate learning environment. 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. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. For more information, see the policies on [classroom behavior](#) and the [Student Code of Conduct](#).

## 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 policy may include: 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](mailto:honor@colorado.edu)); 303-492-5550). Students who are 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 at the [Honor Code Office website](#).

## SEXUAL MISCONDUCT, DISCRIMINATION, HARASSMENT AND/OR RELATED RETALIATION

The University of Colorado Boulder (CU Boulder) is committed to fostering a positive and welcoming learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct intimate partner abuse (including dating or domestic violence), stalking, protected-class discrimination or harassment by 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 [cureport@colorado.edu](mailto:cureport@colorado.edu). Information about the OIEC, university policies, [anonymous reporting](#), and the campus resources can be found on the [OIEC website](#).

Please know that faculty and instructors have a responsibility to inform OIEC when made aware of incidents of sexual misconduct, discrimination, harassment and/or related retaliation, to ensure that individuals impacted receive information about options for reporting and support resources.

## 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. Because of the flexibility of timing of completion of assignments in this class, you must contact the instructor in at least two weeks in advance if you anticipate a religious holiday may impact your completion of coursework. For more information on the religious holidays most commonly observed by CU Boulder students consult the [online interfaith calendar](#).

## 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.

## COURSE WITHDRAWAL POLICY

Any student who wishes to withdraw from the course must submit a request directly to [Continuing Education](#). For complete information, please visit their website at <https://ce.colorado.edu/resources/topics/dates-and-deadlines-general-info/>

## ADDITIONAL SUPPORT SERVICES

A variety of instructional support services, such as writing center, guidance on personal or educational issues, tutoring questions and library resources are available to the students. For more information about their services, visit their websites linked under modules on Canvas.



**Intermediate Microeconomic Theory, ECON 3070, Summer 2020, Li, University of Colorado Boulder**

| <b>Week<br/>(start date)</b> | <b>Module<br/>(start date)</b> | <b>Chapter<br/>Sections</b>  | <b>Number and<br/>Topic</b>                           | <b>Graded Assignments</b>   | <b>Due Date by<br/>11:59pm MST/MDT</b>   |
|------------------------------|--------------------------------|--|---|---|--|
| 1<br>(6/1)                   | 1<br>(6/1)                     | 1 Sections 1.1-1.2, 1.4<br>2 Sections 2.1-2.3<br>Math Review Materials | Preliminaries<br>The basics of S and D<br>Math Review | Early-module assignment 1<br>Practice problem set mod 1 (extra credit)<br>Discussion posting module 1<br>Problem Set module 1<br>Discussion response module 1 | Tuesday 6/2<br>Tuesday 6/2<br>Tuesday 6/2<br>Wednesday 6/3<br>Wednesday 6/3      |
|                              | 2<br>(6/4)                     | 3 Sections 3.1-3.5   | Consumer behavior                                     | Early-module assignment 2<br>Practice Problem set mod 2 (extra credit)<br>Problem Set module 2  | Friday 6/5<br>Friday 6/5<br>Sunday 6/7   |
| 2<br>(6/8)                   | 3<br>(6/8)                     | 2 Section 2.4-2.5<br>4 Sections 4.1-4.3                                | Individual and Market Demand                          | Early-module assignment 3<br>Practice Problem set mod 3 (extra credit)<br>Problem Set Module 3  | Tuesday 6/9<br>Tuesday 6/9<br>Wednesday 6/10                                     |
|                              | 4<br>(6/11)                    | 5 Sections 5.1-5.3, 5.5-5.6  | Uncertainty and Consumer Behavior                     | Early-module assignment 4<br>Practice Problem set mod 4 (extra credit)<br>Problem Set module 4  | Friday 6/12<br>Friday 6/12<br>Sunday 6/14  |
| 3<br>(6/15)                  | 5<br>(6/15)                    | 6 Sections 6.1-6.4   | Production  | Early-module assignment 5<br>Practice Problem set mod 5 (extra credit)<br>Discussion posting module 5<br>Problem Set module 5<br>Discussion response module 5 | Tuesday 6/16<br>Tuesday 6/16<br>Tuesday 6/16<br>Wednesday 6/17<br>Wednesday 6/17 |
|                              | 6<br>(6/18)                    | 7 Sections 7.1-7.4   | The Cost of Production                                | Early-module assignment 6<br>Practice Problem set mod 6 (extra credit)<br>Problem Set module 6  | Friday 6/19<br>Friday 6/19<br>Sunday 6/21  |
| 4<br>(6/22)                  | 7<br>(6/22)                    |  |   | <b>Midterm review</b>   |  |

|             |              |  |  |  |  |
|-------------|--------------|--|--|--|--|
|             | 8<br>(6/22)  | <b>You may take the PROCTORED midterm exam the day of your choosing Thursday through Sunday.</b> |  | <b>Midterm Exam</b>  | <b>Thursday – Sunday<br/>6/25 – 6/28</b>   |
| 5<br>(6/29) | 9<br>(6/29)  | <b>8</b> Sections 8.1-8.8  | Profit Max and Competitive Supply  | Early-module assignment 9<br>Practice Problem set mod 9 (extra credit)<br>Problem Set module 9   | Tuesday 6/30<br>Tuesday 6/30<br>Wednesday 7/1                                    |
|             | 10<br>(7/2)  | <b>2</b> Section 2.7<br><b>4</b> Section 4.4<br><b>9</b> Sections 9.1-9.6                        | The basics of S and D<br>Individual and Market Demand<br>The analysis of Competitive Markets | Early-module assignment 10<br>Practice Problem set mod 10 (extra credit)<br>Problem Set module 10  | Friday 7/3<br>Friday 7/3<br>Sunday 7/5   |
| 6<br>(7/6)  | 11<br>(7/6)  | <b>10</b> Sections 10.1-10.4<br><b>11</b> Sections 11.1-11.2                                     | Market Power: Monopoly<br>Pricing with Market Power  | Early-module assignment 11<br>Practice Problem set mod 11 (extra credit)<br>Discussion posting module 11<br>Problem Set module 11<br>Discussion response module 11 | Tuesday 7/7<br>Tuesday 7/7<br>Tuesday 7/7<br>Wednesday 7/8<br>Wednesday 7/8      |
|             | 12<br>(7/9)  | <b>12</b> Section 12.1<br><b>12</b> Section 12.4   | Monopolistic Competition<br>Oligopoly – prisoner’s dilemma                                   | Early-module assignment 12<br>Practice Problem set mod 12 (extra credit)<br>Problem Set module 12  | Friday 7/10<br>Friday 7/10<br>Sunday 7/12  |
| 7<br>(7/13) | 13<br>(7/13) | <b>13</b> Sections 13.1-13.5   | Game theory  | Early-module assignment 13<br>Practice Problem set mod 13 (extra credit)<br>Discussion posting module 13<br>Problem Set module 13<br>Discussion response module 13 | Tuesday 7/14<br>Tuesday 7/14<br>Tuesday 7/14<br>Wednesday 7/15<br>Wednesday 7/15 |
|             | 14<br>(7/16) | <b>16</b> Section 16.7<br><b>18</b> Sections 18.1,18.2,18.5                                      | Why markets fail<br>Externalities and Public Goods   | Early-module assignment 14<br>Practice Problem set mod 14 (extra credit)<br>Problem Set module 14  | Friday 7/17<br>Friday 7/17<br>Sunday 7/19  |
| 8<br>(7/20) | 15<br>(7/20) | <b>Final Exam Review</b>   |  |  |  |
|             | 16<br>(7/20) | <b>You may take the PROCTORED midterm exam the day of your choosing Thursday through Sunday.</b> |  | <b>Final Exam</b>  | <b>Thursday – Sunday<br/>7/23– 7/26</b>  |