



# ECON 306

## Intermediate Microeconomics

### Spring 2024

Class Hours: Tue & Thu 2-3:15 pm in Engineering B103

Instructor: Vinicius Cicero

Office Location: Clark C309B

E-mail: [vinicius.cicero@colostate.edu](mailto:vinicius.cicero@colostate.edu) Office Hours: Tue/Thu 10:00-11:00 am or by [appt.](#)

## Course Description

Intermediate microeconomics is one of the core theory courses for economics majors and minors. Students will develop competence in using microeconomic analysis and game theory to explain economic decision-making by individuals and firms. In particular, we will discuss how markets allocate resources, how market structure affects choices and social welfare, and the ways that government intervention can improve or impair the functioning of markets. Wherever possible I will use real-world examples and current issues to illustrate concepts and strengthen understanding of the theoretical material. Students will be trained to use strategic reasoning and think critically about social and economic phenomena.

## Prerequisites

Principles of Microeconomics (ECON202/AREC 202) AND basic calculus (MATH 141, 155, or 160), or the equivalent of these courses taken at a different university.

## Materials

### Required Material:

- Nicholson, W. E. & Snyder, C. M. (2017) *Microeconomic Theory: Basic Principles and Extensions*, Cengage Learning, 12th edition. ISBN: 978 1305505794 [NS]

NS is the *required* textbook for the course. You can find paperback versions of the book for a good price. If preferred, older editions of the book are fine and are usually very cheap.

**Recommended Material:** In addition to the required textbook, I highly recommend you use the following book to better accompany the course. VR is particularly helpful for students that prefer a less mathematical approach to some of the topics. Older versions are fine (and cheap) as well.

- Varian, H. R. (2014) *Intermediate Microeconomics: A Modern Approach*, W. W. Norton & Company, 9th edition. ISBN: 978 0393123968 [VR]

**Additional/Advanced Material:** The following books are not required texts, and you do not have to read any of them. However, if you feel like exploring different approaches or explanations for some of the topics we cover in the course, or you are interested in a more formal description of the content, they can be helpful. Keep in mind that those are advanced readings.

- Jehle, G. A. & Reny, P. J.(2011) *Advanced Microeconomic Theory*, Pearson, 3rd edition. [JR]
- Mas-Colell, A.; Whinston, M. D. & Green, J. (1995) *Microeconomic Theory*, Oxford University Press. [MWG]
- Varian, H. R. (1992) *Microeconomic Analysis*, W. W. Norton & Company, 3rd edition.

JR treats the same theory we cover in a more mathematical way, some of the examples and the intuition could be useful. MWG is arguably the most complete textbook in microeconomic theory, however, it is only recommended for advanced (graduate-level) courses. The last book is a more mathematical and arid version of VR, useful if you want to complement the readings with a more conceptual framework.

## Course Objectives

At the completion of this course, students will be able to:

- Demonstrate how producers and consumers make decisions to optimize profit and utility;
- Define efficiency and outline conditions in which markets or uncoordinated self-interest produce efficient social outcomes;
- Give examples of market failure and how government intervention might produce more efficient social outcomes;
- Identify and discuss the strategic underpinnings of past economic/social phenomena;
- Analyze novel situations through the lens of game theory and create or apply a model to understand likely behavior.

## Required Work

You have three contact hours per week with me during class time. By definition of credit hours (3 for this course), plan on devoting *at least* 2 hours of outside work for each contact hour. That sums to 9 hours per week in this class. The table below lists the *minimal* expectations about weekly effort for the class. The final grade for the class will be a weighted average of problem sets, recurrent quizzes, a midterm exam, and a final exam.

Activity	Contact Hours/week
Attend class	2.5
Read assigned readings	1.5
Review class notes	1
Work on problem sets	2
Study for exams	2
<b>Total</b>	<b>9</b>

## Course Structure and Grade Distribution

### Exams (40% of the grade)

There will be one midterm exam and a comprehensive final exam that are both in class, closed book, and closed note. There will be **NO MAKE-UP EXAMS!** If you must miss the midterm for a documented emergency or illness, its weight will shift to the final. If you cannot take the final exam for a similar reason, you may take an Incomplete grade for the course.

The midterm exam will take place Thursday, February 22nd, 2024 (20% of the grade), and the final exam (20% of the grade), according to the University Calendar, will take place Tuesday, May 7th, 2024, 9:40-11:40 am.

### Problem Sets (30% of the grade)

We will have bi-weekly problem sets in this class for evaluation of progress and practice. Six problem sets will be posted on Canvas - a tentative schedule for the release is presented by the end of this syllabus - and due dates will be announced through the weeks. I will announce due dates as the semester goes on during class and also through Canvas.

Collaboration is not only recommended but also expected for the completion of problem sets. Working in groups of 3-4 students fosters a dynamic environment where diverse perspectives and insights come together to tackle complex challenges. Through collaboration, students can learn from one another, exchange ideas, and collectively arrive at more comprehensive solutions. This approach not only enhances problem-solving skills but also cultivates effective communication and teamwork abilities, which are vital in real-world scenarios. Therefore, I encourage all students to actively engage in group collaboration as they approach their problem sets, as it will undoubtedly lead to a richer learning experience and better outcomes.

### In-class Quizzes (15% of the grade)

You are required to do the readings for each week in advance and review it in detail after each class. It is fundamental that students are following the course week by week as it is easy to get lost in the material. To assess students' progress there will be 6-7 in-class quizzes. These quizzes will be quick and short, taking 15 minutes of class time at maximum, either at the beginning or by the end of the class, and will not be announced in advance. To be accommodating, I will drop the two lowest quiz scores for the final grade - more on this matter below.

### Experiments (10% of the grade)

On two separate occasions, we will run an experiment with everyone in class where you will be confronted with a game or activity and asked to play to the best of your ability. Once we have run the experiment and gathered the data, we will discuss in class the equilibrium prediction and whether it is consistent with our results. You will then go home and write up a thorough reflection/report on the experiment.

## Class Participation (5% of the grade + extra credit)

Consistent participation during class time is expected and necessary for you to do well in this class. Class participation raises the level of the discussion and helps collective learning. Woody Allen famously quipped, "80% of success is just showing up." I've found that to be remarkably true for college students. You can almost surely get an 80% in this class just by showing up every day and participating. I'll even privilege 5% of your grade to it.

## Late/Missed Assignment Policy

There will be no extensions or make-up assignments except as necessary for Student Disability Center (SDC) accommodations. Instead, I build in the following flexibility. If you miss a deadline, you may turn in the assignment for half-credit, up to 1-week later. **You also get two passes for the term.** I drop your two lowest quiz scores. That means for any reason at all you may miss two quizzes without any penalty. You don't need to tell me the reason. I don't need to know, I don't need unnecessary emails about it. However, use your passes wisely because you don't want to burn them up early and then find that you need them for an emergency late in the term.

## Grading Policy

Letter grades will be assigned on the plus/minus system. Please refer to the university website for details on how this translates to GPA. While I believe in helping students achieve their full potential, I do not believe in grade inflation. If you get an A in this course, it is because you earned it!

A+	100.00%	to 96.67%	B-	< 83.33%	to 80%
A	< 96.67%	to 93.33%	C+	< 80.00%	to 76.67%
A-	< 93.33%	to 90%	C	< 76.67%	to 70%
B+	< 90.00%	to 86.67%	D	< 70.00%	to 60%
B	< 86.67%	to 83.33%	F	< 60.00%	to 0

## Course Expectations

- **General**

- My position on most things can be summed up easily: conduct yourself with respect and courtesy and I will be quite accommodating; disregard me or your fellow students and I will not be so helpful. This includes aggressive or condescending behavior toward others in class and being late to appointments with me. I expect a full measure of professionalism during all interactions, virtual or in-person.
- Anyone can succeed in this course, it's a matter of working hard and getting help when needed. I am very happy to help in any way I can. Talk to me if things aren't going well, or get me to reexplain things that aren't clear. Please ask questions, even if they seem obvious or embarrassing—I will never evaluate you based on your questions, and I will not allow anyone in the class to belittle you.

- **Sensitive Topics and Inclusivity**

- We will sometimes deal with difficult and sensitive topics in this class. I want to inform you of some ground rules for ensuring these discussions are inclusive and productive. 1) All questions and comments are welcome, provided they are voiced with sincerity and an intent to learn. Genuine, respectful participation is a pathway to understanding and growth; I desire for all such voices to be heard. 2) Insincere, snarky, disrespectful, patronizing, or inflammatory questions and comments will not be tolerated. Such behavior undermines the learning environment and excludes valuable members of our community.
- Mindful disagreement is growth-inducing. One of my goals is to help you develop skills in constructive discussion. You will hear dissenting opinions. Some of these will make you uncomfortable; perhaps, in some cases, reactive. If you learn to channel this emotion into calm and thoughtful arguments for your point of view, the whole class benefits and you have grown because of the discomfort. If you lash out or belittle someone else, the learning opportunity is destroyed and everyone regresses. I will be moderating discussions in this course to ensure the latter is called out and corrected if it occurs. Pluralism is a beautiful thing and a staple of college campuses. Let's work together to make sure it flourishes.

- **Assignments**

- Students are allowed to work together, but should focus on helping each other learn rather than just get the right answers. Recall that **offering** or **accepting** other people's work is an act of **plagiarism** which will be taken very seriously.
- Take pride in your work and turn in presentable, legible, and well-organized assignments. Have them prepared before the deadline or they will be considered late!

## Academic Dishonesty

The course will adhere to the Academic Integrity Policy of the Colorado State University General Catalog and the Student Conduct Code. Academic dishonesty will not be tolerated. Academic dishonesty includes such things as cheating on exams, inventing false information or citations, plagiarism—both of others or oneself and assisting in any such act. If suspected, disciplinary action will be taken in complete accordance with the University's academic honesty policy as stated in the General Catalog: [www.catalog.colostate.edu/general-catalog/policies/students-responsibilities](http://www.catalog.colostate.edu/general-catalog/policies/students-responsibilities)

## Department Statement on Copyright

Please do not share material from this course in online, print, or other media. Course material is the property of the instructor who developed the course. Materials authored by third parties and used in the course are also subject to copyright protection. Posting course materials on external sites (commercial or not) violates both copyright law and the CSU Student Conduct Code. Students who share course content without the instructor's express permission, including

with online sites that post materials to sell to other students, could face disciplinary or legal action.

## Title IX Information

CSU's Discrimination, Harassment, Sexual Harassment, Sexual Misconduct, Domestic Violence, Dating Violence, Stalking, and Retaliation policy designates faculty and employees of the University as "Responsible Employees." This designation is consistent with federal law and guidance, and requires faculty to report information regarding students who may have experienced any form of sexual harassment, sexual misconduct, relationship violence, stalking or retaliation. This includes information shared with faculty in person, electronic communications or in class assignments. As "Responsible Employees," faculty may refer students to campus resources (see below), together with informing the Office of Support and Safety Assessment to help ensure student safety and welfare. Information regarding sexual harassment, sexual misconduct, relationship violence, stalking and retaliation is treated with the greatest degree of confidentiality possible while also ensuring student and campus safety."

- Any student who may be the victim of sexual harassment, sexual misconduct, relationship violence, stalking or retaliation is encouraged to report to CSU through one or more of the following resources:
  - Emergency Response 911
  - Deputy Title IX Coordinator/Office of Support and Safety Assessment (970) 491-1350.
  - Colorado State University Police Department (non-emergency) (970) 491-6425.
- For counseling support and assistance, please see the CSU Health Network, which includes a variety of counseling services that can be accessed at: <http://www.health.colostate.edu>. And, the Sexual Assault Victim Assistance Team is a confidential student resource that does not have a reporting requirement and that can be of great help to students who have experienced sexual assault. The web address is <http://www.wgac.colostate.edu/need-help-support>.

## Student Resources

You are strongly encouraged to use these costless resources to support your education and your overall wellness

- **Econ Tutor Center:** Students can get help with Econ 202, 204, 304, 306, and 335 from free undergraduate tutors. Tutoring will begin the third week of the semester. Tutoring hours are from 10am - 4pm Monday through Friday. Econ Tutor Center is located at Clark C322 and you do not need appointments, just walk-in! Please contact Jackie Young - in the following email [jackie.young@colostate.edu](mailto:jackie.young@colostate.edu) - if you have any questions or concerns.
- **Writing Center:** Help with written assignments can be found at the Writing Center ([www.writingcenter.colostate.edu](http://www.writingcenter.colostate.edu)).

- **Student Disability Center:** Students with documented special needs are welcome in this class and will be reasonably accommodated. Contact the Student Disability Center at (970) 491-6385 or go to [www.disabilitycenter.colostate.edu](http://www.disabilitycenter.colostate.edu). Documentation of disability is required and the RDS office will assist in this process.
- **Tell Someone:** If you are concerned about safety or mental health—your own or someone else’s, please call (970) 491-1350 or complete the online referral form at: [www.supportandsafety.colostate.edu/tell-someone](http://www.supportandsafety.colostate.edu/tell-someone).

Tell Someone is a Colorado State University service where anyone can report concerns about a student or employee who may be struggling with issues such as mental health, stress management, and safety, as well as share concerns about threats of violence (against themselves or others). Through Tell Someone, you can report anything that threatens your safety or the safety of others in the university community. Tell Someone is not designed to get people in trouble; it is designed to help students and employees who may be struggling, as well as help enhance university safety. Tell Someone is your resource if you’re worried about a friend’s well-being. If a student or employee is disruptive, Tell Someone is the right place to turn for intervention as well as university support to help put consequences and boundaries in place. Tell Someone is run by the Office of Support and Safety Assessment. The office is comprised of trained specialists who can identify concerns, pathways to resolution, and university resources. Tell Someone reports are only reviewed during regular business hours. If you believe someone is at risk of immediate harm, call 911.

- **Special Covid-19 Statement:**

All students are expected and required to report to the COVID Reporter (<https://covid.colostate.edu/reporter/>) when:

- You suspect you have symptoms of COVID, regardless of whether or not you are vaccinated and even if your symptoms are mild
- You have tested positive for COVID through a non-CSU testing site, such as a home test or test at a pharmacy
- You believe you may have been exposed to COVID go to the COVID Reporter and follow the guidance under “I believe I have been in close contact with someone who has COVID-19.” This guidance will depend upon your individual circumstances

You will not be penalized in any way for reporting symptoms or concerns.

Do not ask me as your instructor to report for you. It is your responsibility to report through the COVID Reporter promptly.

As your instructor I may not ask you about vaccination status or if you have COVID but you may freely volunteer to send me information from a public health official—if you have been asked to isolate or quarantine.

When you complete the COVID Reporter, the CSU Public Health office is notified. Once notified, that office will contact you and, depending upon each situation, will conduct contact tracing, initiate any necessary public health requirements, and notify you if you need to take any steps.

## Tentative Course Schedule

The weekly coverage might change as it depends on the progress of the class. **Final Exam:**

Week	Content	Text Ref.
1: Jan 16-19	<ul style="list-style-type: none"> <li>• Introduction               <ul style="list-style-type: none"> <li>– Strategic Thinking and Nash Equilibrium</li> <li>– Supply and Demand as Game Theory</li> </ul> </li> <li>• Mathematics for Microeconomics</li> </ul>	Ch 2.1-2.9, Ch 8.1-8.3 [NS] Ch 29 [VR]
2: Jan 22-26	<ul style="list-style-type: none"> <li>• Preferences</li> <li>• Utility</li> <li>• <i>Problem Set 1 posted</i></li> </ul>	Ch 3 [NS] Ch 3-4 [VR]
3: Jan 29 - Feb 2	<ul style="list-style-type: none"> <li>• Utility Maximization</li> <li>• Choice</li> <li>• <i>Problem Set 2 posted</i></li> </ul>	Ch 4 [NS] Ch 5 [VR]
4: Feb 5-9	<ul style="list-style-type: none"> <li>• Demand</li> <li>• Income &amp; Substitution Effects</li> </ul>	Ch 5; Ch 6.1-6.2 [NS] Ch 6-8 [VR]
5: Feb 12-16	<ul style="list-style-type: none"> <li>• Uncertainty</li> <li>• Basics of General Equilibrium</li> </ul>	Ch 7, Ch 13.1 [NS] Ch 12, Ch 32 [VR]
6: Feb 19-23	<ul style="list-style-type: none"> <li>• <b>Review Session</b></li> <li>• <b>Midterm Exam</b></li> </ul>	–
7: Feb 26- Mar 1	<ul style="list-style-type: none"> <li>• Production Functions</li> </ul>	Ch 9 [NS] Ch 19 [VR]
8: Mar 4-8	<ul style="list-style-type: none"> <li>• Cost Functions</li> <li>• <i>Experiment 1: Marginal Product</i></li> <li>• <i>Problem Set 3 posted</i></li> </ul>	Ch 10 [NS] Ch 22 [VR]
SB: Mar 11-15	<ul style="list-style-type: none"> <li>• <b>NO CLASS, Spring Break</b></li> </ul>	–
9: Mar 18-22	<ul style="list-style-type: none"> <li>• Profit Maximization</li> </ul>	Ch 11 [NS] Ch 20-21 [VR]
10: Mar 25-29	<ul style="list-style-type: none"> <li>• Partial Equilibrium</li> <li>• <i>Problem Set 4 posted</i></li> </ul>	Ch 12 [NS] Ch 16 [VR]
11: Apr 1-5	<ul style="list-style-type: none"> <li>• Game Theory</li> <li>• <i>Problem Set 5 posted</i></li> </ul>	Ch 8.4-8.11 [NS] Ch 29-30 [VR]
12: Apr 8-12	<ul style="list-style-type: none"> <li>• Monopoly</li> </ul>	Ch 14.1-14.5 [NS] Ch 25 [VR]
13: Apr 15-19	<ul style="list-style-type: none"> <li>• Oligopoly</li> <li>• <i>Problem Set 6 posted</i></li> <li>• <i>Experiment 2: Cartels and Collusion</i></li> </ul>	Ch 15.1-15.7 [NS] Ch 28 [VR]
14: Apr 22-26	<ul style="list-style-type: none"> <li>• Asymmetric Information</li> </ul>	Ch 18 [NS] Ch 38 [VR]
15: Apr 29- May 3	<ul style="list-style-type: none"> <li>• Externalities</li> <li>• <b>Comprehensive Review</b></li> </ul>	Ch 19.1-19.6 [NS] Ch 35 [VR]

**Tuesday, May 7th from 9:40am–11:40am**