Economics 3080-003: Intermediate Macroeconomic Theory Spring 2025 Department of Economics University of Colorado Boulder

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Lecture Classroom: GUGG 205

Class Meeting Time: MWF 09:05 AM - 09:55 AM

In-person Office Hours: MWF 10:00 AM - 11:00 AM (and by appointments).

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 3080-003: Intermediate Macroeconomic Theory"
- Note: all email correspondence will be through your CU Boulder email address. Do not use the Canvas mail or messages, it is not checked.

Course Overview

This course introduces economic theories of aggregate economic activities including the determination of income, employment, and prices; economic growth; and fluctuations. Macroeconomic policies are examined in both closed and open economy models. We will study models of aggregate output, unemployment, prices, interest rates, inflation, and economic growth. Different time horizons of the short-run, the medium-run, and long-run will be considered. Macroeconomic models will be applied to the U.S. economy. Monetary and fiscal policy issues also will be discussed. This course will think critically, construct arguments, and solve problems using the theory and data that macroeconomists use. An important outcome of this course is the development of coherently understanding and analyzing important contemporary macroeconomic issues.

Course Objective

Upon completion of this course students should be able to:

- Apply algebraic, graphical and calculus tools to macroeconomic theory.
- Apply macroeconomic principles, theories and models to critically analyze and explain economic situations encountered in the real world that involve macroeconomics.
- Acquire the ability to think about complex economic issues in a logical objective manner, so that students discriminate between correct solutions to macroeconomic problems and common misconceptions.
- Evaluate different economic arguments and interpret the reasons why some are well-founded, while others are not.

 Communicate the results of macroeconomic analysis in a clear and professional way.

Course Modality

This is an in-person course. You will be required to come to class. No part of this course is remote. We are hoping the in-person experience will make for a richer and less isolating learning experience for you.

Textbook

Macroeconomics, 12th edition by Mankiw, N. Gregory. The course will use MacMillan Publishing's Achieve homework system that comes with an electronic version of the book embedded in the system. You will sign up for Macroeconomics + Achieve System through Canvas. Detailed instructions for signing up are provided on the course Canvas site.

Class Technology

Achieve Learning System

The course will use the Macmillan Publishing, Achieve Learning system for Learning Curve, Quick Quiz, Homework, and Quiz assignments. There are instructions to sign up for Achieve through Canvas found in the Getting Started Module.

Clickers - This class will use clickers. Answers to clickers questions will be used for class attendance and will be a part of your grade. You will need to sign up for iClicker. There are instructions to sign up for iClicker through Canvas found in the Getting Started Module.

Class Support/Help (Also found on Canvas)

- (1) The primary help option for the course is the professor who has regular office hours.
- (2) The Economics Department provides a free drop-in tutorial office which offers assistance on all core courses in the major, and occasionally on other undergraduate courses in the Department. https://www.colorado.edu/economics/media/3541
- (3) The Economics Department maintains a list of tutors who are available for private hire. Website.
- (4) The Office of Victim Assistance can be reached at 303-492-8855. Its webpage is http://www.colorado.edu/ova/.
- (5) The <u>webpage</u> contains information regarding campus counseling resources available for students and employees with DACA Status.
- (6) The website https://www.colorado.edu/redfolder/ provides guidance with regard to assisting students in distress.

Do not fall behind in this course. Students who keep up with all assignments tend to succeed in the course. Failing to keep up often results in failing the course. Do the required work and use the help available to you to in order to master the material. I want you to succeed in this course.

Prerequisites: ECON 2020 (Principles of Macroeconomics) and ECON 1088 or MATH 1081 or MATH 1300 or MATH 1310 or APPM 1350 (math and Calculus) (all min grade C-). Restricted to students with 22-180 units completed.

Course Evaluation

Clicker/Attendance	5%
Learning Curve (LC)	10%
Quick Quizzes (QQ)	5%
Homework Exercises (HW)	10%
Quizzes (QZ)	10%
Midterm 1	18%
Midterm 2	18%
Cumulative Final	24%

Clicker/Attendance (5%): Clickers questions will be asked for the content learned during the class. Class attendance is automatically recorded once logged in at the iClicker cloud. Students are required to attend the class regularly. For flexibility of class attendance, you may miss up to three sessions for any (medical) reason with no penalty. Beyond these three, each absence will lower your grade unless we've come to an agreement in advance (regarding medical concerns, for example.) You'll be responsible for making up missed work and material for any missed class by liaising with your classmates. More than 3/4 of the class attendance is required to pass the course. Otherwise, students will automatically get the failing grade.

Learning Curve, Quick Quizzes, Homework and Quizzes (35%): There will be weekly assignments (LC, QQ, HW, QZ) for each chapter that are due at sets times. The lowest 2 scores of each LC, QQ, HW and QZ will be dropped (In other words, you may miss up to 2 out of a series of the each weekly assignment to receive full credit). Late assignments will not be accepted. Assignments days are set for Learning Curve on Monday/Wednesday (total 16), Quick Quizzes on Wednesday/Friday (total 16), HW on Saturday (total 16), and Quizzes on Saturday (total 16). Learning curve, Quick Quizzes and Homework are allowed for unlimited attempts per question with small penalty. Multiple attempts are not allowed for Quizzes.

Tests (60%): The three exams will be combinations of analytical problems, short essay questions and multiple choice questions of topics covered in class. Missing an exam should be avoided. **No (remote) makeup exams will be given.** For students who miss their exams for medical reasons, a make-up exam may be given when the student returns to class. The midterm exam 1 (18%), and the midterm exam 2 (18%) will be on the specified chapters of the texts. The final exam (24%) is cumulative from all of the chapters that we will have learned. **Final exam is held in person**. When students have three or

more final examinations on the same day, they are entitled to arrange an alternative examination time for the last exam or exams scheduled on that day.

Letter Grade will be assigned as follows:

A: 94% - 100%

A-: 90.00 – 93.99 %

B+: 87.00 - 89.99 %

B: 83.00 – 86.99 %

B-: 80.00 - 82.99 %

C+: 77.00 - 79.99 %

C: 73.00 - 76.99 %

C-: 70.00 – 72.99 %

D+:67.00 - 69.99 %

D: 63.00 – 66.99 %

D-: 60.00 - 62.99 %

F: 0.00 - 59.99%

Important Dates

January 13 (Mon.) – First Day of this Class

Jan. 20 (Mon.) – Martin Luther King, Jr. Holiday (campus closed)

February 14, Friday – Midterm 1

March 21, Friday – Midterm 2

Mar. 24-28 (Mon.-Fri.) – Spring Break (campus closed Fri., March 28)

April 30 (Wed.) – Last Day of this Class

Tuesday, May 6, 1:30-4 p.m. (Econ 3080-003) - Final Exam, GUGG 205.

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 submissions are not accepted for any of the assignments, problem sets or exams**. Some 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.

Tentative Course Outline (Updated 01/17/25)

Module	Course Topics	Assignments	Due Dates
1		Learning Curve	W (1/15)
	Class Logistics & the Basics (Chapter 1:	Quick Quiz	F(1/17)
	The Science of Macroeconomics)	Homework	S (1/18)
		Quiz	S (1/18)

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	The Data, Production & Incomes	Learning Curve	M/W (1/20, 1/22)
2	Modules 2.A and 2.B	Quick Quiz	W/F (1/22, 1/24)
_	(Ch. 2: The Data of Macroeconomics &	Homework	S (1/25), M(1/27)
	Ch. 3 & Ch. 4: National Income)	Quiz	S (1/25). M1/27)
		Learning Curve	M (1/27)
3	The Monetary System (Chapter 5)	Quick Quiz	W (1/29)
3	The Wonetary System (Chapter 5)	Homework	S (2/01)
		Quiz	S (2/01)
		Learning Curve	M(2/03)
4	Money & Inflation (Chapter 6)	Quick Quiz	W (2/05)
4	Money & Innation (Chapter 0)	Homework	S (2/08)
		Quiz	S (2/08)
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5	Midterm Exam 1, Feb	ruary 14, Friday	y
		Learning Curve	M (2/17)
	TI O F (CI + 7)	Quick Quiz	W(2/19)
6	The Open Economy (Chapter 7)	Homework	S(2/22)
		Quiz	S (2/22)
_	Unemployment and the Labor Market (Chapter 8)	Learning Curve	M (2/24)
		Quick Quiz	W (2/26)
7		Homework	S (3/01)
		Quiz	S (3/01)
	Economic Growth I (Chapter 9: Capital Accumulation as a Source of Growth)	Learning Curve	M (3/03)
		Quick Quiz	W (3/05)
8		Homework	S (3/08)
		Quiz	S (3/08)
		Learning Curve	M/W(3/10,3/12)
	Economic Growth II (Ch. 10: Population	Quick Quiz	W/F(3/12, 3/14)
9	Growth and Technological Progress &	Homework	S (3/15)
	Ch.11: Growth Empirics and Policy)	Quiz	S (3/15)
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10	Midterm Exam 2, Ma	arch 21, Friday	
M	Iarch 24-28 (MonFri.)– Spring Break (ca	mpus closed Fri	March 28)
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		Learning Curve	M (3/31)
11	Introduction to Business Cycles (Chapter 12: Introduction to Economic Fluctuations)	Quick Quiz	W (4/02)
			S (4/05)
		Quiz	S (4/05)
	Aggregate Demand I: Building the IS–LM Model (Chapter 13)	Learning Curve	M (4/07)
12		Quick Quiz	W (4/09)
12		Homework	S (4/12)
		Quiz	S (4/12)
		Learning Curve	M (4/14)
13	Aggregate Demand II: Applying the IS–LM		W (4/16)
	Model (Chapter 14)	Homework	S (4/19)
		Quiz	S (4/19)

14	The Open Economy Revisited: The Mundell-Fleming Model and the Exchange-Rate Regime (Chapter 15)	Learning Curve Quick Quiz Homework Quiz	M (4/21) W (4/23) S (4/26) S (4/26)
15	Aggregate Supply and the Short-Run Tradeoff Between Inflation and Unemployment (Chapter 16)	Learning Curve Quick Quiz Homework Quiz	M (4/28) T(4/29) W(4/30) W(4/30)
16	Tuesday, May 6, 1:30–4 p.m. – Final Exam, GUGG 205.		

Note: This syllabus is revised and updated based upon Professor Murat Iyigun's ECON 3080. I thank Professor Murat Iyigun for allowing me using his course materials.

Generative AI Use Policy for ECON 3080

1. General Principle

Generative artificial intelligence tools—software that reproduces text, images, computer code, audio, video, and other content—have become widely available. Well-known examples include ChatGPT for text and DALL•E for images. This statement governs all such tools, including those released during our semester together.

Keep in mind that the goal of gen AI tools is to reproduce content that seems to have been produced by a human, not to produce accurate or reliable content; therefore, relying on a gen AI tool may result in your submission of inaccurate content. It is your responsibility—not the tool's—to assure the quality, integrity, and accuracy of work you submit in any college course.

2. Scope of Limited Gen AI Use*

Clicker Responses: You are required to actively participate in class using the iClicker system. AI should **not** be used to respond to clicker questions in place of your personal engagement.

Learning Curve & Quick Quizzes: While AI tools can help you understand concepts or explain difficult material, you **must** independently complete these assignments. AI should **not** be used to provide direct answers to these assignments, as this would be a violation of the "independent work" expectation.

Homework & Quizzes: AI may be used as a learning aid, such as by providing additional explanations or guidance on problem-solving methods. However, you **must** ensure that your homework and quizzes reflect your own understanding of the material. Direct assistance from AI in answering homework and quiz questions is **not** allowed. Using AI to

^{*} OpenAI. (2025). ChatGPT. https://www.openai.com/chatgpt

generate responses or solve problems that you are required to answer independently (like homework or quizzes) would be considered academic dishonesty.

Multiple Attempts: AI may be used to clarify doubts between attempts, but you should not rely on it to continually change answers in order to achieve a better score.

Communication with Instructors: If you are unsure about how to use AI tools in the context of this class, or if you need accommodations for any reason (such as medical), it's important to discuss this with your instructor directly rather than relying on AI for advice.

3. Consequences of Misuse

If gen AI tool use is suspected in completing assignments for this course in ways not explicitly authorized, I will follow up with you. I may contact the Office of Student Conduct & Conflict Resolution to report suspected Honor Code violations. In addition, you must be wary of unintentional plagiarism or data fabrication. Please act with integrity, for the sake of both your personal character and your academic record.

Class Ground Rules for Dialogue

1. Respect Each Other

In order to create a climate for open and honest dialogue and to encourage the broadest range of viewpoints, it is important for class participants to treat each other with respect. Name calling, accusations, verbal attacks, sarcasm, and other negative exchanges are counterproductive to successful teaching and learning about topics.

2. Discuss with the Purpose of Generating Greater Understanding

The purpose of class discussions is to generate greater understanding about different topics. The expression of the broadest range of ideas, including dissenting views, accomplishes this goal. However, in expressing viewpoints, students should try to raise questions and comments in way that will promote learning, rather than defensiveness and conflict in other students. Thus, questions and comments should be asked or stated in such a way that will promote greater insight into and awareness of topics as opposed to anger and conflict.

3. Don't Personalize the Dialogue

Keep the discussion and comments on the topic, not on the individual. Don't personalize the dialogue. Rather than personalizing the dialogue, please direct challenging comments or questions to the instructor or the entire class.

4. Agree to Disagree

Remember that it is OK to disagree with each other. Let's agree to disagree. The purpose of dialogue and discussion is not to reach a consensus, nor to convince each other of different viewpoints. Rather, the purpose of dialogue in the classroom is to reach higher levels of learning by examining different viewpoints and opinions.

5. Participate and Share

Everyone is expected to share. Keep in mind that the role of the instructor is to make sure that everyone's voice is heard in class.

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, marital status, political affiliation, or political philosophy.

For more information, see the <u>classroom behavior policy</u>, the <u>Student Code of Conduct</u>, and the <u>Office of Institutional Equity and Compliance</u>.

Accommodation for Disabilities 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 <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 <u>Honor Code</u>. 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. Understanding the course's syllabus is a vital part in adhering to the Honor Code.

All incidents of academic misconduct will be reported to Student Conduct & Conflict Resolution: 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 <u>protected-class</u> discrimination and harassment, sexual misconduct (harassment, exploitation, and assault), intimate partner abuse (dating or domestic violence), stalking, and related retaliation by or against members of our community on- and off-campus. 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 <u>CUreport@colorado.edu</u>. Information about university policies, <u>reporting options</u>, and <u>OIEC support resources</u> including confidential services can be found on the <u>OIEC website</u>.

Please know that faculty and graduate instructors are required to inform OIEC when they are made aware of incidents related to these concerns regardless of when or where something occurred. This is to ensure that individuals impacted receive outreach from OIEC about their options and support resources. To learn more about reporting and support for a variety of concerns, visit the Don't Ignore It page.

Accommodation for Religious Obligations

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 a timely manner. See the <u>campus policy regarding religious observances</u> 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 <u>Counseling and Psychiatric Services</u> (CAPS) located in C4C or call (303) 492-2277, 24/7.

Free and unlimited telehealth is also available through <u>Academic Live Care</u>. The Academic Live Care site also provides information about additional wellness services on campus that are available to students.