Macroeconomic Theory: ECON 8453

Spring 2025 University of Missouri

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(Note: All times used in this syllabus are US Central Time (CST). Daylight saving time in 2024 ends at 2:00am on Sunday, November 3rd.)

Course Description

The purpose of this course is to develop one's understanding of the core theories in modern macroeconomics. Models commonly used to study aggregate economic behavior will be discussed. This course intensively uses algebra (including linear algebra) and calculus. It could be helpful to take Quantitative Economics (Econ 7370) and Microeconomic Theory (Econ 8451) before taking this course.

Course Goals

Throughout the 16-week semester, students will develop a comprehensive understanding and interpretation of economic indicators, dynamic modeling, and policy analysis. The course integrates theoretical concepts with practical applications, preparing students for advanced study in economics and related fields. Additionally, this class will cover some of the essential topics and concepts required to complete the <u>NABE Certified Business Economist</u> exam, ensuring students are well-prepared for the professional certification. After completing the entire course, students should be able to:

- 1. understand economic growth and growth factors;
- 2. understand the concept of dynamics and solve basic dynamic models;
- 3. understand the concept of general equilibrium and solve a general equilibrium model;
- 4. understand micro-founded models of money;
- 5. analyze the possible outcome of an economic policy.
- 6. understand individual's employment choices and aggregate unemployment rate (time permitting);

Required Textbook Materials

- 1. (Romer) Advanced Macroeconomics 5th edition by David Romer (an online version is available for \$32, see below)
 - You should receive an email providing AutoAccess details beginning on January 6, 2025. Student accounts will be billed for the required AutoAccess material beginning January 6, 2025. Of course, you can opt out before the deadline to receive a refund. Opt out deadline is February 4, 2025.
 - If you opt in, you can access your textbook via the VS Materials link in the left hand navigation menu in Canvas.

- 2. (CSV) <u>Advanced Macroeconomics: An Easy Guide by Campante, Sturzenegger and</u> <u>Velasco (LSE Press). Available for free here.</u>
- 3. Additional readings, such as relevant journal articles, or videos available in Canvas

Online Course Access

You may access the course via <u>https://courses.missouri.edu</u>. Under course login, select Canvas and enter your username. If you have difficulty logging in to the course or you do not see the course listed, please contact the Mizzou IT Help Desk at (573)882-5000.

Online Course Materials

All online contents of this class are copyrighted and are not to be shared or used outside of this class.

Technical Skills Required

This class is a semester based online course. You are expected to have minimal technical skills such as using Canvas, scanning and uploading documents. Having reliable access to the Internet is necessary.

Zoom Office Hours & Discussion Board Questions

Since this is an online class and everyone has different schedules, I will hold Zoom office by appointment as needed. While I generally respond quickly to emails, please allow 24 - 48 hours for a reply. For general questions (i.e., not specific to you personally), you are encouraged to reply to the Weekly email announcement or post in the General Questions discussion board on our course Canvas site. I will monitor it throughout the week and respond to general questions there.

Dates and Deadlines

- All homework assignments and tests must be submitted in Canvas by the deadline. Please note that once the due date and time have passed (even by 1 second), the link to submit disappears and you can no longer submit your answers.
- There are 11 homework assignments that you need to complete. Each assignment will be due by Sunday night by 11:59pm CST time in the week when the respective topic(s) are covered. I drop your lowest homework grade.
- We will have (six) periodic discussion board prompts. During a week with a discussion prompt, you are required to submit one initial post by Thursday at 11:59pm and respond to two of your classmates' initial posts by Sunday at 11:59pm. I drop your lowest discussion grade.

- There are three exams for this course. The exams are proctored by Honorlock (see below). The exam dates are as follows
 - Exam 1 (Friday, February 21st by 10pm CST)
 - Exam 2 (Friday, April 4th by 10pm CST)
 - Exam 3 (Tuesday, May 13th by 10pm CST)

The exams should take about 2 hours: 15 minutes to get settled and logged into Canvas and Honorlock, 90 minutes for answering exam questions, and 15 minutes for submission.

All Students Take the Exams on the Same Day

All students take the exams on the same day. As the exam date is set far ahead, please arrange with your professors in other classes and/or employers so that you have a 2-hour window in which to take the exam.

Honorlock

Honorlock will proctor your exams this semester. Honorlock is an online proctoring service that allows you to take your exam from the comfort of your home. You DO NOT need to create an account or schedule an appointment in advance. Honorlock is available 24/7, and all that is required is a computer, a working webcam/microphone, your ID, and a stable internet connection.

To get started, you will need the most recent version of *Google Chrome* and download the <u>Honorlock Chrome Extension</u>.

When you are ready to complete your exam log into Canvas, go to your course, navigate to the Honorlock tab, and select your exam. Clicking "Launch Proctoring" will begin the Honorlock authentication process, where you will take a picture of yourself and show your ID. During the authentication steps, you may be prompted to complete a room scan. This is a test taker authentication step in which you will be asked to perform a 360-degree scan of your environment with the computer or webcam to confirm the integrity of the testing environment. Honorlock will be recording your exam session through your webcam and microphone and recording your screen. Honorlock also has an integrity algorithm that can detect search-engine use, so please do not attempt to search for answers, even if it's on a secondary device.

Honorlock support is available 24/7/365. If you encounter any issues, you may contact them through live chat on the <u>support page</u> or within the exam itself. Some guides you should review are <u>Honorlock MSRs</u>, <u>Honorlock FAQs for Test Takers</u>, <u>Honorlock Knowledge Base</u>, and <u>How to Use Honorlock</u>.

Late Work Policy

No late homework assignments and tests will be accepted without University and Instructor approved documentation. If you have circumstances that affect your ability to complete an assignment or test, please contact the instructor at least 2 days in advance of the due date. Unfortunately, this does not include discussion posts. Given the timely nature of discussion posts, no late posts will be accepted/allowed.

Grading Policy and Course Requirements:

All work will be assigned a percentile score based upon the following criteria:

Symbol Interpretation	<u>Scale (%)</u>	
Excellent	93-100	
	90-92	
Good	87-89	
	83-86	
	80-82	
Average	77-79	
_	73-76	
	70-72	
Below Average	67-69	
-	60-66	
Fail	0-59	
	Symbol Interpretation Excellent Good Average Below Average Fail	Symbol Interpretation Scale (%) Excellent 93-100 90-92 90-92 Good 87-89 83-86 80-82 Average 77-79 73-76 70-72 Below Average 67-69 60-66 60-59

The final grade for the course will be determined as follows:

Task	Percentage of Final Grade (%)
Homework	25%
Discussion Board Posts	15%
Exam I (Friday, February 21st)	20%
Exam II (Friday, April 4 th)	20%
Exam III (Tuesday, May 13 th)	20%

Expectations

- What to expect from a technology-enhanced Course
 - This course is designed to meet virtually. Each week of the course will have a corresponding instructional topic that includes readings, video lecture(s) and homework assignments. It is essential that you access the course site throughout the week for course announcements, watch lectures, find required reading, participate in class discussions, submit homework assignments and take exams, etc.
 - What the instructors and your peers expect from you— All general class correspondence should be submitted to the relevant Discussion Board forum; only personal or confidential matters should be directed to the instructor in e-mail. This will require a team effort, with respect and help for each other, as we build a community of learners. We also expect that you will have a foundational understanding of Internet terms and functions.
 - What to expect from the instructor I will monitor and facilitate class discussions, respond to private questions within 24 to 48 hours, provide timely feedback on general discussion board questions, and help to build a learning community.

Advice (How to be Successful)

We will cover various models that deal with different issues in the economy. I suggest you,

- Watch the lecture videos/read lecture notes.
- Read the corresponding chapters in the textbooks & any relevant journal articles listed on Canvas
- Make sure you can re-derive all the equations and think through the logic and the steps of solving the models. Mastering these models means you can think outside the core models for possible extensions.
- Do not wait until the last day to start working homework: All homework assignments are due at 11:59pm CST on Sunday. If you need help, I may not be available at the last minute.
- Never be late with online submissions of assignments and exams: Once the due date and time have passed (even by 1 second), the link to submit disappears.

Online Class Netiquette

Your instructor and fellow students wish to foster a safe on-line learning environment. All opinions and experiences, no matter how different or controversial they may be perceived, must be respected in the tolerant spirit of academic discourse. You are encouraged to comment, question, or critique an idea but you are not to attack an individual.

Our differences, some of which are outlined in the University's nondiscrimination statement below, will add richness to this learning experience. Please consider that sarcasm and humor can be misconstrued in online interactions and generate unintended disruptions. Working as a community of learners, we can build a polite and respectful course ambience.

Weekly Schedule & Assignments

Below is a weekly overview so you have time to coordinate your semester. Please plan accordingly.

Here is what you can expect during a typical *non-exam week* (Weeks 1 - 4, 6 - 9, 11 - 15):

- 1. New weekly content opens Sunday at 12:00 am CST (unfortunately, you cannot access the material earlier)
- 2. Read weekly description/notes (Monday Wednesday)
- 3. Watch lecture video(s) (Monday Wednesday)
- 4. Read required textbook selections & additional articles provided in Canvas (Monday Thursday)
- 5. (If applicable) Post an initial discussion board post by Thursday at 11:59pm CST (Discussion posts usually occur on the week we finish a topic, e.g., Week 1, 3, 6, 9, 12, 14)
- 6. (If applicable) Respond to two of your classmates initial posts by Sunday at 11:59pm CST (Discussion posts usually occur on the week we finish a topic, e.g., Week 1, 3, 6, 8, 12, 14)
- 7. Homework due by Sunday at 11:59pm CST

Here is what you can expect during an *exam week* (Weeks 5, 10, 15)

- 1. Review exam summary handout
- 2. Review content covered in the exam (see material covered for each exam below)
- 3. Take exam during a 2-hour window you select on the specified date

Week	Weekly Content	
1: Jan 21 – Jan 26	Introduction	
2: Jan 27 – Feb 2	Economic Growth (Solow model I)	
3: Feb 3 – Feb 9	Economic Growth (Solow model II)	
4: Feb 10 – Feb 16	Economic Growth with Micro Considerations (Ramsey model I)	
5: Feb 17 – Feb 23	Review & exam	
6: Feb 24 – Mar 2	Economic Growth with Micro Considerations (Ramsey model II)	
7: Mar 3 – Mar 9	Intergenerational Interactions (Overlapping generations model I)	
8: Mar 10 – Mar 16	Intergenerational Interactions (Overlapping generations model II)	
9: Mar 17 – Mar 23	Endogenous Growth (AK Model)	
March 24 – March 30 SPRING BREAK		
10: Mar 31 – Apr 6	Review & Exam	
11: Apr 7 – Apr 13	Keynesian Theory of Fluctuations (IS/LM AD/AS review)	
12: Apr 14 – Apr 20	Keynesian Criticism (Lucas model & critique)	
13: Apr 21 – Apr 27	Attempt to Respond to Lucas critique (DSGE I)	
14: Apr 28 – May 4	Using DSGE for Policy (DSGE II/Taylor Rule)	
15: May 5 – May 15	Review & Exam	

Important Dates:

Last day to drop from course Reading day Final exams Monday, May 5th Friday, May 9th May 12th – 16th

Accessibility:

If disability related accommodations are necessary (for example, a note taker, extended time on exams, captioning), please register with the Office of Disability Services (<u>http://disabilityservices.missouri.edu</u>), S5 Memorial Union, 573- 882-4696, and then notify me of your eligibility for reasonable accommodations. For other MU resources for students with disabilities, click on "Disability Resources" on the MU homepage.

Academic Integrity Policy

Academic integrity is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards breaches of the academic integrity rules as extremely serious matters. Sanctions for such a breach may include academic sanctions from the instructor, including failing the course for any violation, to disciplinary sanctions ranging from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting, collaboration, or any other form of cheating, consult the course instructor or the <u>Office of Academic Integrity</u>.

Students are expected to adhere to this honor pledge on all graded work whether or not they are explicitly asked in advance to do so: "I strive to uphold the University values of respect, responsibility, discovery, and excellence. On my honor, I pledge that I have neither given nor received unauthorized assistance on this work.

AI Policy

In this course, AI software is permitted exclusively for brainstorming, idea generation, and assistance with mathematical concepts. Students may use AI tools to explore creative concepts, develop outlines, and generate initial ideas for writing assignments (such as initial discussion board posts). However, the actual writing, drafting, and editing processes must be completed independently, without AI assistance, to ensure that the final product accurately reflects each student's skills and understanding. Additionally, AI is strictly prohibited during exams, so it is crucial to complete your homework without relying on AI.

Restrictions on Disclosure and Distribution

In this class, students may not make audio or video recordings of course activity, except students permitted to record as an accommodation undersection 240.040 of the Collected Rules. Students who violate this policy are subject to discipline in accordance with provisions of <u>section 200.020</u> of the Collected Rules and Regulations of the University of Missouri pertaining to student conduct matters.

Nondiscrimination Policy

The University of Missouri does not discriminate on the basis of race, color, national origin, ancestry, religion, sex* (including gender), pregnancy, sexual orientation, gender identity, gender expression, age, disability, protected veteran status, and any other status protected by applicable 7 state or federal law. Discrimination includes any form of unequal treatment such as denial of opportunities, harassment, and violence. *Sex discrimination includes rape, sexual assault, sexual harassment, unwanted touching, stalking, dating/domestic violence, stalking, and sexual exploitation. Retaliation for making or supporting a report of discrimination or harassment is also prohibited.

If you experience discrimination or sexual violence, you are encouraged (but not required) to report the incident to the MU Office for Civil Rights & Title IX. Learn more about your rights and options at civilrights.missouri.edu or call 573-882-3880. You also may make an anonymous report online.

If you are a survivor, or someone concerned about a survivor, and need immediate information on what to do, see RSVP Resources page. Both the Office for Civil Rights & Title IX and the RSVP Center can provide assistance to students who need help with academics, housing, or other issues.

In the event that you choose to write or speak about having experienced any of these forms of prohibited discrimination or harassment, Mizzou policies require that, as your instructor, I share this information with the MU Office for Civil Rights & Title IX. They will contact you to offer information about resources, as well as your rights and options as a member of our campus community.

Mental Health

The University of Missouri is committed to supporting student well-being through an integrated network of care, with a wide range of services to help students succeed. The MU Counseling Center offers professional mental health care and can help you find the best approach to

treatment based on your needs. Call to make an appointment at 573-882-6601. Any student in crisis may call or go to the MU Counseling Center between 8:00 - 5:00 M-F. After hours phone support is available at 573-882-6601. Visit their website at <u>https://wellbeing.missouri.edu</u> to take an online mental health screening, find out about workshops and resources that can help you thrive, or learn how to support a friend. Download <u>Sanvello</u>, a phone app that teaches skills and strategies to help you maintain good mental health. Log in with your Mizzou e-mail to unlock all the tools available through Sanvello at no cost to you.

Religious Holidays & Accommodations

Many religious faiths are represented in the student body. The University of Missouri does not restrict student free exercise of religion, unless 1) the restriction is in the form of a rule of general applicability, and does not discriminate against religion or among religions; and 2) it can be demonstrated that the application of the restriction is essential to furthering a compelling university interest, and is not unduly restrictive considering the relevant circumstance. The policy of the University attempts to strike a reasonable balance between accommodating the religious practice of students and meeting academic needs and standard.

Consult IDE's <u>Guide to Religions</u> for the form that can be used to notify an instructor of an absence associated with religious practice. Students are expected to notify their instructor(s) by completing and submitting this form in a manner that is consistent with the procedure outlined in the university's policy on student religious accommodation. Providing false information regarding sincerely held religious practice is a violation of the university's Standard of Conduct and will not be tolerated.

FERPA

FERPA The Family Educational Rights and Privacy Act (FERPA) of 1974 is a federal law designed to protect the privacy of educational records; to establish the rights of students to inspect and review their education records; and to provide guidelines for the correction of inaccurate and misleading data through informal and formal hearings. The law applies to any individual who is or has been in attendance at an institution and regarding whom the institution maintains educational records. Once students have matriculated to the University of Missouri, i.e. enrolled in course work, FERPA rights transfer to the student, regardless of the student's age.

Students can enable certain individuals to have access to their education records by signing a FERPA waiver. The consent must specify records to be disclosed, state the purpose of the disclosure and identify the party or class of parties to whom the disclosure must be made.

Grievance Policy

Information concerning student grade appeal procedures and non-academic grievances and appeals may be found in the Student Handbook.

Disclaimer

The instructor reserves the right to change any part of the syllabus. Should such instances arise, students will be notified in advance. Please follow Canvas for up-to-date weekly readings.