

**Online Econ 8453: Macroeconomic Theory**  
Fall 2021  
University of Missouri

Instructor: Professor Chao Gu

Email: [guc@missouri.edu](mailto:guc@missouri.edu)

Zoom Office Hours: Thursday, 7pm – 8pm (Exception: September 30, 12pm-1pm).

Time zone: **Central Daylight Time** before 2am on Sunday, November 7, 2021;  
**Central Standard Time** after 2am on Sunday, November 7, 2021.

Teaching Assistant: Mr. Dong Ho Kang

Email: [dkc7w@mail.missouri.edu](mailto:dkc7w@mail.missouri.edu)

**When you email me, please always cc Dong Ho.**

**Recommended Course Materials**

Introduction to Modern Economic Growth, by Daron Acemoglu, Princeton 2009 (Chapters 1 and 2 can be downloaded from the publisher's website).

Modeling Monetary Economics, 4<sup>th</sup> edition, by Bruce Champ, Scott Freeman, and Joseph Haslag, Cambridge 2016.

**Course Description**

The purpose of this course is to develop one's understanding of the core theories in modern macroeconomics. We will learn models that are developed to study aggregate economic behavior. Meanwhile, I will familiarize you with the tools (workhorses) that are commonly used in modern macroeconomics.

**Course Goals**

After completing the entire course, you should be able to:

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

**Online Course Access**

You may access the course via <https://courses.missouri.edu>. Under course login, select Canvas and enter your PawPrint. 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**

I will hold Zoom office hour from 7-8pm on Thursday. It would be the best if you can email me your questions before the office hour. Outside my office hour, please allow 24 hours for a response to your email. I will also be monitoring the discussion board throughout the week and can respond to general questions there.

## **Discussion Board**

For general questions (i.e., not specific to you personally), you are encouraged to post to the 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 submission disappears and you can no longer submit your answers.
- There are 12 homework assignments that you need to complete. Each assignment is due by Saturday night at 11pm central time in the week when the respective chapter is covered.
- There are three exams for this course. All exams are closed notes, closed book. No formula sheets allowed. The exams are proctored by SmarterProctoring (see below). The exam dates and time are as follow:  
**Exam 1:** September 24, 7pm-9pm (central time), Units 1-4  
**Exam 2:** October 29, 7pm-9pm (central time), Units 6-9  
**Exam 3:** December 10, 7pm-9pm (central time), Units 11-14

## **All Students Take the Exams at the Same Time**

All students take the exams at the same time. As the schedule of the exams is set far ahead, please arrange with your professors in other classes and/or employers that you can take these exams at the specified times.

## **SmarterProctoring**

The exams in this course require the use of auto proctoring (SmarterProctoring), which is an online, remote proctoring system that uses advanced machine learning and identity-verification technology to ensure test integrity.

You must have a laptop or desktop computer with a webcam and a microphone; you cannot use a smartphone or tablet. You must have a stable internet connection to take the assessment. The University recognizes that not all students may be able meet the minimum requirements. If you do not have access to the minimum technology requirements or have disabilities that require the use of a screen reader or keyboard navigation shortcuts, please inform me before the exam so that accommodations may be made.

You will have an opportunity to take a practice assessment before you take a graded exam. You should do this as soon as possible and certainly ahead of your first exam as required adjustments may take a few minutes and use up valuable exam time.

Please be aware that:

- You, your computer and physical test-taking environment
- As you may be recorded, please dress appropriately
- You may be asked to show a picture ID to the camera
- You will need a quiet place to take the assessment — both for your concentration and as interruptions (voices, another person on camera) may be flagged for potential cheating

See the [Keep Learning](#) website for your specific software to learn how to:

- install any needed extensions
- set up your assessment environment; and
- complete the pre-assessment checks.

## **Late Work Policy**

No late homework assignments and exams will be accepted without University and Instructor approved documentation. If you have circumstances that affect your ability to complete an assignment or exam, please contact the instructor at least 2 days in advance of the due date.

## **Evaluation and Grading**

The course will be graded on the basis of twelve homework assignments and three exams. Each homework assignment is worth 10 points, and each exam is worth 50 points. The maximum total points will be 270. Letter grades will be assigned using the Grade Table below.

A+ = 260-270	A = 246-259	A- = 230-245	B+ = 210-229	B = 190-209
B- = 170-189	C+ = 150-169	C = 120-149	C- = 100-119	F = 99 and below

## **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 unit that includes the video lecture and homework assignment. It is essential that you access the course site throughout the week for course announcements, watch lectures, 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 (Monday through Friday), 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)**

This course is developed based on my teaching of Macroeconomic Theory in the past years. Some lecture notes are based on Professor Joseph Haslag's teaching. We will cover various models that deal with different issues in the economy. There is no required textbook for this course. The video lectures, lecture slides and notes are the most important tools for you to learn.

- Watch the lecture videos: Each week has two or three lecture videos. I would encourage you to view the videos first, and then
- Read the lecture notes and study the chapter slides: Re-derive all the equations and think through the logic and the steps of solving the models. Furthermore,
- Think, think, think! The models covered in this course are the core models in the related literature. You must master these models and think above the core models for possible extensions.
- Do not wait until the last day to start working on a homework: All homework assignments are due at 11pm on Saturday.
- 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 submission disappears.

## **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 and Assignments

<b>Week</b>	<b>Unit Content</b>	<b>Task</b>
1 (8/22-8/28)	A Static Model I	1. Watch video lecture. 2. Read Chapter 1 notes. 3. Submit Homework 1 by 11 pm on Saturday, 8/28.
2 (8/29-9/4)	A Static Model II	1. Watch video lecture 2. Read Chapter 1 notes 3. Submit Homework 2 by 11 pm on Saturday, 9/4.
3 (9/5-9/11)	A Simple Intertemporal Model	1. Watch video lecture 2. Read Chapter 2 notes 3. Submit Homework 3 by 11pm on Saturday, 9/11.
4 (9/12-9/18)	Solow Model I	1. Watch video lecture. 2. Read Chapters 1 and 2 of <i>Introduction to Modern Economic Growth</i> by Daron Acemoglu, Princeton 2009 (Chapters 1 and 2 can be downloaded from the publisher's website). 3. Submit Homework 4 by 11pm on Saturday, 9/18.
5 (9/19-9/25)	Review and Exam 1	1. Review Units 1-4. 2. Take Exam 1 from 7pm-9pm on Friday, 9/24.
6 (9/26-10/2)	Solow Model II	1. Watch video lecture. 2. Read Chapters 1 and 2 of <i>Introduction to Modern Economic Growth</i> . 3. Submit Homework 5 by 11pm on Saturday, 10/2.
7 (10/3-10/9)	Overlapping Generations I	1. Watch video lecture. 2. Read Chapter 4 notes 3. Submit Homework 6 by 11pm on Saturday, 10/9. 4. Supplementary reading: Chapters 15-17 of <i>Modeling Monetary Economics</i> .
8 (10/10-10/16)	Overlapping Generations II	1. Watch video lecture. 2. Read Chapter 5 notes 3. Submit Homework 7 by 11pm on Saturday, 10/16. 4. Supplementary reading: Chapters 15-17 of <i>Modeling Monetary Economics</i> .
9 (10/17-10/23)	Overlapping Generations III	1. Watch video lecture. 2. Read Chapter 5 notes 3. Submit Homework 8 by 11pm on Saturday, 10/23. 4. Supplementary reading: Chapter 2 of <i>Modeling Monetary Economics</i> .
10 (10/24-10/30)	Review and Exam 2	1. Review Units 6-9. 2. Take Exam 2 from 7pm-9pm on Friday, 10/29.
11 (10/31-11/6)	Overlapping Generations IV	1. Watch video lecture. 2. Read Chapter 5 notes 3. Submit Homework 9 by 11pm on Saturday, 11/6. 4. Supplementary reading: Chapter 2 of <i>Modeling Monetary Economics</i> .
12 (11/7-11/13)	Labor Search I	1. Watch video lecture. 2. Read Chapter 6 notes. 3. Submit Homework 10 by 11pm on Saturday, 11/13.

13 (11/15-11/20)	Labor Search II	<ol style="list-style-type: none"> <li>1. Watch video lecture.</li> <li>2. Read Chapter 6 notes.</li> <li>3. Submit Homework 11 by 11pm on Saturday, 11/20.</li> </ol>
14 (11/21-11/27)	Thanksgiving Recess	
15 (11/28-12/4)	Money Search	<ol style="list-style-type: none"> <li>1. Watch video lecture.</li> <li>2. Read Chapter 7 notes. Submit Homework 12 by 11pm on Saturday, 12/4.</li> </ol>
16 (12/5-12/11)	Review and Exam 3	<ol style="list-style-type: none"> <li>1. Review Units 11-14.</li> <li>2. Take Exam 3 from 7pm-9pm on Friday, 12/10.</li> </ol>

### **Academic Integrity**

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 [Office of Academic Integrity](#).

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."

### **Accommodation of Disabilities**

The goal of the University of Missouri is to ensure an inclusive learning environment for all students. [The University of Missouri Disability Center](#) provides services and accommodations for students to participate fully in the learning experience and to experience equitable evaluation of their performance. Students (including online students) with a documented disability can contact the Disability Center to establish an [Accommodation Plan](#). Documented disabilities include hearing, vision, mobility, learning and attention, psychological health, and physical health. Students' accommodations are implemented with the input of students to maximize the learning experiences. The MU Disability Center keeps information about a student's disability confidential.

Please notify me of your eligibility for accommodations as soon as possible. Additionally, if there are aspects of the course that present as barriers, such as inaccessible course content (e.g., learning assessments, PowerPoints, non-captioned videos, images, tables, PDFs) or if you need an immediate accommodation due to an injury, please contact me or the Disability Center as soon as possible.

## **Intellectual Pluralism**

The University community welcomes intellectual diversity and respects student rights. Students who have questions or concerns regarding the atmosphere in this class (including respect for diverse opinions) may contact the departmental chair or divisional director, the [Office of Academic Integrity](#), or the [MU Equity Office](#).

## **Restrictions on Disclosure and Distribution**

Students may make audio or video recordings of course activity unless specifically prohibited by the faculty member. To foster a safe environment for learning, however, the redistribution of audio or video recordings of statements or comments from the course to individuals who are not students in the course is prohibited without the express permission of the faculty member and of any students who are recorded. Unauthorized distribution of such materials is a violation of academic standards and may violate copyright laws and/or privacy rights. Students found to have violated this policy are subject to discipline in accordance with the provisions of [Section 200.020 of the Collected Rules and Regulations](#) of the University of Missouri pertaining to student conduct matters.

## **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.

## **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 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](http://civilrights.missouri.edu) or call 573-882-3880. You also may make an anonymous report online.

Students may also contact the Relationship and Sexual Violence Prevention (RSVP) Center, a confidential resource, for advocacy and other support related to rape or power-based personal violence at [rsvp@missouri.edu](mailto:rsvp@missouri.edu) or 573-882-6638, or go to [rsvp.missouri.edu](http://rsvp.missouri.edu).

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.

### **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 our website at <https://wellbeing.missouri.edu> 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 Sanvello, 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.

### **Last Date of Attendance and Impact on Financial Aid**

Federal regulations for financial aid require the student financial aid office to document the attendance of students who have received federal financial aid if they do not successfully complete any courses during the term. As a result, the last day of attendance (or activity) for any student receiving an F, U, or FN in this course will be recorded in the grade roster and reported to the financial aid office. **Based on the last day of attendance, students may be required to repay a portion of their financial aid award for the semester.**

A student's last day of attendance (or activity) is the last day on which a student participates in an academically-related activity at the University. These include:

- Attendance in class, lab, or an instructor's office hours
- The completion of an assignment or examination
- An appointment with a professor or e-mail correspondence regarding course material
- (Online courses only) For online courses, the last day a student submits an assignment or exam. Only logging into an online class without participating is *not* acceptable for last day of attendance

Please note that discussing a course withdrawal or notifying the instructor of an absence in class does not constitute participation for financial aid purposes. Moreover, any office hour visits or email correspondence must be related to the course material.

### **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 standards.

Consult IDE's [Guide to Religions](#) 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.