

**Online Econ 8453: Macroeconomic Theory**  
Fall 2020  
University of Missouri

Instructor: Professor Chao Gu

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

Zoom Office Hours: Thursday, 1pm – 1:45pm.

Time zone: **Central Daylight Time** before 2am on Sunday, November 1, 2020;  
**Central Standard Time** after 2am on Sunday, November 1, 2020.

Teaching Assistant: Nabi Arjmandi

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

**When you email me, please always cc Nabi Arjmandi.**

### **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 1pm-1:45pm 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 submit disappears and you can no longer submit your answers.
- There are 12 homework assignments that you need to complete. Each assignment will be due by Saturday night at 11pm central time in the week when the respective chapter is covered.
- There are three exams for this course. The exams are proctored by Proctorio (see below). The exam dates and time are as follow:  
**Exam 1:** September 25, 7pm-9pm (central time), Units 1-4  
**Exam 2:** October 30, 7pm-9pm (central time), Units 6-9  
**Exam 3:** December 11, 7pm-9pm (central time), Units 11-14  
Each exam includes 15 minutes for setting up, 90 minutes for answering exam questions, and 15 minutes for submission.

### **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.

## **Proctorio**

Exams in this course require the use of the Proctorio Learning Integrity Platform. Proctorio is an online, remote proctoring system that uses advanced machine learning and identity-verification technology to ensure test integrity.

Taking assessments with Proctorio requires the use of the Google Chrome browser; you cannot use any other browser. 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 to take the assessment. Please review [Taking Proctorio Tests](#) to ensure that your hardware and software meet the minimum requirements.

You will have an opportunity to take a practice exam with Proctorio before you take a graded assessment. (Some of the settings in the practice assessment may differ from the actual ones in your course.) You should do this ahead of your first real assessment with Proctorio, as required adjustments may take a few minutes and take valuable assessment time.

Please be aware that:

- You, your computer, and physical test-taking environment may be recorded.
- 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 exams -- both for your concentration and as interruptions (voices, another person on camera) may be flagged for potential cheating.

If you have concerns about your privacy or data security, please see Proctorio's statement on [Personal Data Protections](#).

See the [Taking Proctorio Tests](#) page in the Keep Learning website to learn how to:

- install the Proctorio extension for Chrome;
- set up your exam environment; and
- complete the pre-exam checks.

## **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.

## **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 = 250-259	A- = 240-249	B+ = 230-239	B = 215-229
B- = 200-214	C+ = 180-199	C = 150-179	C- = 120-149	F = 100 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 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 and Assignments

Week	Unit Content	Task
1 (8/24-8/30)	A Static Model I	1. Watch video lecture. 2. Read Chapter 1 notes. 3. Submit Homework 1 by 11 pm on Saturday, 8/29.
2 (8/31-9/6)	A Static Model II	1. Watch video lecture 2. Read Chapter 1 notes 3. Submit Homework 2 by 11 pm on Saturday, 9/5.
3 (9/7-9/13)	A Simple Intertemporal Model	1. Watch video lecture 2. Read Chapter 2 notes 3. Submit Homework 3 by 11pm on Saturday, 9/12.
4 (9/14-9/20)	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, 9/19.
5 (9/21-9/27)	Review and Exam 1	1. Review Units 1-4. 2. Take Exam 1 from 7pm-9pm on Friday, 9/25.
6 (9/28-10/4)	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, 10/3.
7 (10/5-10/11)	Overlapping Generations I	1. Watch video lecture. 2. Read Chapter 4 notes 3. Submit Homework 6 by 11pm on Saturday, 10/10. 4. Supplementary reading: Chapters 15-17 of <i>Modeling Monetary Economics</i> .
8 (10/12-10/18)	Overlapping Generations II	1. Watch video lecture. 2. Read Chapter 5 notes 3. Submit Homework 7 by 11pm on Saturday, 10/17. 4. Supplementary reading: Chapters 15-17 of <i>Modeling Monetary Economics</i> .
9 (10/19-10/25)	Overlapping Generations III	1. Watch video lecture. 2. Read Chapter 5 notes 3. Submit Homework 8 by 11pm on Saturday, 10/24. 4. Supplementary reading: Chapter 2 of <i>Modeling Monetary Economics</i> .
10 (10/26-11/1)	Review and Exam 2	1. Review Units 6-9. 2. Take Exam 2 from 7pm-9pm on Friday, 10/30.
11 (11/2-11/8)	Overlapping Generations IV	1. Watch video lecture. 2. Read Chapter 5 notes 3. Submit Homework 9 by 11pm on Saturday, 11/7. 4. Supplementary reading: Chapter 2 of <i>Modeling Monetary Economics</i> .
12 (11/9-11/15)	Labor Search I	1. Watch video lecture. 2. Read Chapter 6 notes. 3. Submit Homework 10 by 11pm on Saturday, 11/14.
13 (11/16-11/22)	Labor Search II	1. Watch video lecture. 2. Read Chapter 6 notes. 3. Submit Homework 11 by 11pm on Saturday, 11/21.
14 (11/23-11/29)	Thanksgiving Recess	

15 (11/30-12/6)	Money Search	1. Watch video lecture. 2. Read Chapter 7 notes. Submit Homework 12 by 11pm on Saturday, 12/5.
16 (12/7-12/13)	Review and Exam 3	1. Review Units 11-14. 2. Take Exam 3 from 7pm-9pm on Friday, 12/12.

### **Academic Integrity Policy**

Academic honesty 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 academic dishonesty as an extremely serious matter, with serious consequences that range from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting, or collaboration, consult the course instructor.

Academic Dishonesty includes but is not necessarily limited to the following:

- A. Cheating or knowingly assisting another student in committing an act of cheating or other academic dishonesty.
- B. Plagiarism which includes but is not necessarily limited to submitting examinations, themes, reports, drawings, laboratory notes, or other material as one's own work when such work has been prepared by another person or copied from another person.
- C. Unauthorized possession of examinations or reserve library materials, or laboratory materials or experiments, or any other similar actions.
- D. Unauthorized changing of grades or markings on an examination or in an instructor's grade book or such change of any grade report.

**Academic Integrity Pledge:** *"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."* Students are expected to adhere to this pledge on all graded work whether or not they are explicitly asked in advance to do so.

The University has specific academic dishonesty administrative [procedures](#). Although policy states that cases of academic dishonesty must be reported to the Office of the Provost for possible action, the instructor may assign a failing grade for the assignment or a failing grade for the course, or may adjust the grade as deemed appropriate. The instructor also may require the student to repeat the assignment or to perform additional assignments. In instances where academic integrity is in question, faculty, staff and students should refer to [Article VI of the Faculty Handbook](#). Article VI is also available in the [M-Book](#). Article VI provides further information regarding the process by which violations are handled and sets forth a standard of excellence in our community.

### **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.

### **Students with Disabilities (residential and online courses)**

If you anticipate barriers related to the format or requirements of this course, if you have emergency medical information to share with me, or if you need to make arrangements in case the building must be evacuated, please let me know as soon as possible.

If disability related accommodations are necessary (for example, a note taker, extended time on exams, captioning), please register with the Office of Disability Services (<http://disabilityservices.missouri.edu>), 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.

### **Intellectual Pluralism Statement**

The University community welcomes intellectual diversity and respects student rights. Students who have questions concerning the quality of instruction in this class may address concerns to either the Departmental Chair or Divisional leader or Director of the [Office of Students Rights and Responsibilities](#) (<http://osrr.missouri.edu/>). All students will have the opportunity to submit an anonymous evaluation of the instructor(s) at the end of the course.

### **Title IX**

University of Missouri policies prohibit discrimination on the basis of race, color, national origin, ancestry, religion, sex, gender, gender identity, gender expression, sexual orientation, pregnancy, age, disability and protected veteran status. Discrimination includes any form of unequal treatment such as denial of opportunities, harassment, and violence. Sex-based violence includes rape, sexual assault, unwanted touching, stalking, dating/interpersonal violence, and sexual exploitation.

If you experience discrimination, 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.

### **Grievance Policy**

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