## Econ 9453 Fall Semester 2020

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office hrs: Wed 3:00pm – 4:00pm and by appt.

The purpose of this course is twofold. First, I want to further develop your understanding of the core theories in macroeconomics. Second, my aim is to bridge the conceptual gaps that arise as one moves from undergraduate macroeconomics to graduate level.

The semester grade will be determined by the faculty teaching you for the semester. For my 8-weeks, grades are determined by problem sets and an exam. I will give you a problem set every two weeks (there will be three problems sets). The problem sets will count for 40% of your grade and the exam will count for 60%.

There is one required book for this course: *Introduction to Modern Economic Growth* by Acemoglu provides a better treatment of the technical issues involved in solving models (hereafter referred to ACE)

## **Topics:**

- 1. A static general equilibrium model
  - a. The welfare theorems
  - b. Comparative statics
- 2. The Solow growth model (Chap 2 in ACE)
  - a. Description
  - b. Solution
  - c. Dynamics
  - d. Comparative statics
  - e. Growth accounting (Chap 3.1 in ACE)
  - f. Read the overview of the foundations of representative agents (skim chapter 5 in ACE, especially 5.1 and 5.2)
  - g. Gorman's Key representation theorem
- 3. The Neoclassical Growth Model (read more carefully Chap 8 in ACE, section 8.6)
  - a. Basic results
  - b. Utility and optimal growth
  - c. Comparison with the planner's allocation: the 1<sup>st</sup> and 2<sup>nd</sup> welfare theorems
  - d. Comparative statics
- 4. Dynamics of the basic neoclassical growth model
  - a. Why analytic solutions are so hard
  - b. Methods to deal with dynamics near the steady state (local dynamics)

- 5. Some basics of the dynamic programming method
  - a. Showing the equivalence of the sequential model and the bellman equation
  - b. Recursiveness, time consistency and
  - c. Using the bellman equation and deriving the envelope conditions
- 6. Introducing stochastic shocks
  - a. Uncertainty and expected utility maximization
  - b. Arrow-Debreu Equilibrium in the spot markets (read ACE 5.8)
  - c. Equivalence with sequential trading
- 7. Overlapping generations model
  - a. Dynamics and steady state
  - b. Inefficiency
  - c. Policy

### **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.

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 <u>procedures</u>. 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 <u>Article VI of the Faculty Handbook</u>. Article VI is also available in the <u>M-Book</u>. Article VI provides further information regarding the process by which violations are handled and sets forth a standard of excellence in our community.

## **STUDENTS WITH DISABILITIES:**

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, 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.

# THE DEPARTMENT OF ECONOMICS EXAM ACCOMMODATION PROCEDURE FOR STUDENTS WITH DISABILITIES:

- 1. A disabled student who wants accommodations for an exam in Economics course must present the course instructor with a Letter of Accommodation from the Office of Disability Services (ODS) that documents the accommodations the student is entitled to receive. This should be done as early in the semester as possible.
- 2. For each accommodated exam, the student should bring the course instructor an Adaptive Examination Request Form from ODS. The course instructor is not required to accept such a request unless the student has first provided you with a Letter of Accommodation. ODS policies require that this form be provided to you at least 7 business days in advance for hourly examinations and by Thanksgiving Break (Spring Break) for fall (spring) final examinations.

- 3. The student section of the form must be properly filled out (including consistency with the Letter of Accommodation regarding the accommodations) and signed by the student. The course instructor must fill out the instructor portion including a note in the SPECIAL INSTRUCTIONS box and sign the form.
- 4. The white and pink copies of the form are given back to the student and the student must submit the white copy to ODS.

#### **RECORDING LECTURES**

University of Missouri System Executive Order No. 38 lays out principles regarding the sanctity of classroom discussions at the university. The policy is described fully in Section 200.015 of the Collected Rules and Regulations. In this class, students may not make audio or video recordings of course activity, except students permitted to record as an accommodation under Section 240.040 of the Collected Rules. All other students who record and/or distribute audio or video recordings of class activity are subject to discipline in accordance with provisions of Section 200.020 of the Collected Rules and Regulations of the University of Missouri pertaining to student conduct matters.

Those students who are permitted to record are not permitted to redistribute audio or video recordings of statements or comments from the course to individuals who are not students in the course without the express permission of the faculty member and of any students who are recorded. Students found to have violated this policy are subject to discipline in accordance with provisions of Section 200.020 of the Collected Rules and Regulations of the University of Missouri pertaining to student conduct matters.