

ECON 8050: Macroeconomics II

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Spring 2020

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Office: B455 Amos Hall

Time and Location: T/R 2:00-3:15pm, Sanford Hall 207

Office Hours (subject to change): Wednesday 2-3:30pm, or by appointment

Teaching Assistant: Suchika Chopra (Suchika.Chopra@uga.edu)

COURSE DESCRIPTION

This is the second of two core classes in macroeconomic theory. The course will place a particular emphasis on techniques used to solve macroeconomic models.

PRE-REQUISITES

ECON 8040.

To do assignments for this class, you have to have some familiarity with computer programming.

IMPORTANT DATES

March 7 or 19: Midterm (in-class)

May 5: Final Exam (3:30pm, regular classroom)

GRADING POLICY

The final grade will be assigned based on three tasks:

Homeworks – 25%

Midterm - 30%

Final - 45%

COURSE MATERIAL

I will not follow any particular textbook for this class. The material I will cover comes from a variety of sources some of which are listed below (* means some version of the book is available online):

Consumption, Orazio Attanasio. Chapter 11 in Handbook of Macroeconomics, 1999, Elsevier (*)

Dynamic Economics. Quantitative Methods and Applications. Jerome Adda and Russell Cooper. The MIT Press. 2003

Asset Pricing, John Cochrane. Oxford University Press (*)

Dynamic General Equilibrium Modeling. Burkhard Heer and Alfred Maussner. Springer, any edition

Recursive Macroeconomic Theory, Lars Ljungqvist and Thomas Sargent, 3rd Edition. The MIT Press, 2012.

Notes on Macroeconomic Theory, Steve Williamson, Unpublished Notes, 2006. (*)

GENERAL INFORMATION

Attendance: Given that lectures will be the main material for this course the attendance is required. If you have to miss the class for some (important) reason, tell me beforehand.

Homework: You will be assigned several homeworks throughout the semester. I encourage you to work on these assignments in groups but every student should hand in his/her own assignment. Several of the assignments will be computational. These assignments must be submitted as follows: a printout of the results and the code to me, and the code itself to the TA electronically. She will check how each code runs. You are free to use any language you want, but the version you submit for grading must be in Matlab.

Make-up midterm policy: The exams must be taken on the scheduled dates. There will be no make-up exams for the midterm. If you miss the midterm because of emergency, the final exam will count for a larger fraction of the final grade.

Make-up final policy: I will reserve the right to arrange a make-up examination for the final exam only in case of emergencies.

Missing exams because of emergencies Students who miss the exam because of emergency have to provide a documental proof. For example, if a student misses an exam because of illness I need a letter from the doctor confirming that a student had a serious condition preventing him/her to take the exam on a scheduled date.

UNIVERSITY HONOR CODE & ACADEMIC HONESTY POLICY

I expect all students in this course to fully understand and comply with UGA's culture of academic honesty:

As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, "A Culture of Honesty," and the Student Honor Code. All academic work must meet the standards described in "A Culture of Honesty" found at:

<https://ovpi.uga.edu/academic-honesty/academic-honesty-policy>. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor.

COURSE TOPICS OUTLINE

The following is the tentative course outline. Some topics may be expanded or omitted.

1. Consumption and savings: a partial equilibrium environment

- Permanent income hypothesis (PIH)
- Income fluctuations problem and certainty equivalence
- Failures of PIH and consumption puzzles
- Precautionary savings
- Some extensions: buffer stock savings; non-expected utility

2. Practical dynamic programming

- Setting-up the dynamic programming problem
- Value function iteration and backward induction
- Interpolation and extrapolation
- Approximation of stochastic processes

3. Overlapping generations models

- Basic setup, competitive equilibrium and Pareto optimum, dynamic efficiency
- Applications: Social Security and pension systems

4. Consumption and savings: a general equilibrium environment

- Standard incomplete markets model (SIM)
- The notion of invariant distribution
- First generation SIM (Hansen and Imrohoroglu, 1992; Huggett, 1993, Aiyagari, 1994)
- Shortfalls of SIM: wealth inequality
- SIM with aggregate uncertainty
- Developments of SIM and applications

5. Asset pricing

- Consumption-based asset pricing
- Consumption-based asset pricing in general equilibrium
- Equity premium puzzle

6. Calibration

- Bringing a model to the data
- Micro datasets used to calibrate macro models
- Labor income process estimation

Always keep in mind that the course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.
