ECO 7206: PhD Macroeconomics Theory Core 1

Min Fang
University of Florida
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Course Description

This course is designed to prepare PhD students to be researchers in macroeconomics. Principally, you will learn tools for solving macroeconomic models, focusing on recursive methods. You will become familiar with the foundations, principles, and some topics of modern macroeconomic theory. Lastly, you will learn to read and understand macroeconomic research in general interest journals. In this Term 1, we will focus on the core materials of macroeconomics. Part one covers the dynamic programming theory, including dynamic exchange economies, neoclassical growth models, (practical) deterministic and stochastic dynamic programming, and two applications in asset pricing and consumption-saving, respectively. Part two covers applications of major topics, including overlapping generation, real business cycles, sticky prices, fiscal and monetary policy, and introducing heterogeneous households and firms. The organization of this course benefits and inherits a lot from similar courses taught by Chris Edmond, Dirk Krueger, and Eric Sims.

Instructor & Teaching Assistants & Textbooks

- Instructor: Min Fang, Assistant Professor, Department of Economics, University of Florida
- Instructor Contact: (minfang@ufl.edu) — (MAT 327) — Office Hour: By Appointment.
- Lecture Time and Location: From 1:55 to 3:15 PM; No Break; MAT 16
- Teaching Assistants: Qilin Zhang (qilin.zhang@ufl.edu) — (MAT 406) — Office Hour: TBA.
- Recitation for Tutorials/Assignments: Mostly Thursday after class from 3:15 to 4:00 PM
- Textbook 1: Dirk Krueger, Macroeconomic Theory (Main)
- Textbook 2: Sargent and Ljungqvist, Recursive Macroeconomic Theory
- Textbook 3: Azzimonti, Krusell, McKay, and Mukoyama, Macroeconomics

Course Topics

Part 1: Dynamic Programming Theory

1. A Simple Dynamic Exchange Economy
2. Concepts on Complete Markets General Equilibrium
3. The Neoclassical Growth Model in Discrete Time
4. Introductions to Dynamic Programming
5. Introductions to Stochastic Dynamic Programming
6. Application 1: Consumption-based Asset Pricing
7. Application 2: Consumption-savings Problems

Part 2: Applications of Some Major Topics

1. Job Search and Matching
2. The Overlapping Generations Model
3. The Real Business Cycles Model
4. Sticky Prices and Menu Costs
5. Fiscal and Monetary Policy

Class Dates

1. Week 01: 08/22 (Introduction)
2. Week 02: 08/27 & 08/29
3. Week 03: 09/03 & 09/05
4. Week 04: 09/10 & 09/12
5. Week 05: 09/17 (Zoom) & 09/19 (Zoom)
6. Week 06: 09/24 & 09/26
7. Week 07: 10/03 (Midterm 1) — (No Class on 10/01)
8. Week 08: 10/08 & 10/10
9. Week 09: 10/15 & 10/17

10. Week 10: 10/22 & 10/24
11. Week 11: 10/29 & 10/31
12. Week 12: 11/05 & 11/07
13. Week 13: 11/12 & 11/14
14. Week 14: 11/19 (Early Class)
15. Pre-Exam: 11/29 (Long Office Hour over Zoom)
16. Week 15: 12/03 (Midterm 2, No Pre-Exam Review)

Assignments & Exams

- **Assignments:** Problem sets will be assigned most weeks. Problem sets will always be assigned at least a week before they are due. I encourage you to work in small groups (i4) to solve the problem sets. But be sure that you can understand and solve them individually. The exam problems will reflect, but not exactly resemble, those on the problem sets. Problem sets will account for 33% of your grade.
- **Exams:** Each exam will account for 33% of your grade; You will get 1 point for free for final grades.

Boilerplate

Enrollment in this course constitutes acknowledgment of the following:

- 1) I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action, up to and including expulsion from the University. I will adhere to university copyright policies.
- 2) Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student, who must then provide this documentation to the instructor when requesting accommodation.
- Grading policies: https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/
- Attendance policies: https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/
- Honor code: https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/