Course Outline and Reading List

This course is the first of a two-semester sequence in Ph.D. level macroeconomics. The goal of this course is to introduce students to modern macroeconomic theory. It will focus on contemporary theories of economic growth, short-run fluctuations, fiscal policy, and the current account. The course will also cover methods to solve and evaluate relevant models.

The learning goals for this course are:

1. learn how to use time series analysis to summarize basic facts about the macroeconomy.
2. learn contemporary theories of growth, consumption/saving, optimal government taxation, and international borrowing.
3. learn how to solve dynamic optimization models via dynamic programming.

Lectures will be given on Tuesdays and Thursdays from 11:00 to 12:20. All lectures will be given in Sachar International Center, Chancellor’s Suite.

The primary references for the course are


These texts are available from the Brandeis University Bookstore and most on-line booksellers. Both books are oriented toward models and methods for solving and analyzing them, and this course will share this emphasis. Students may also wish to have on their bookshelf a good undergraduate intermediate macroeconomics text.

The readings focus on material that you are expected to become familiar with. Additional readings will be brought up throughout the course. This list is not anything like a full bibliography of interesting work on the topics covered or on macroeconomics in general. The two text books contain many suggestions for further reading, as do the assigned papers. Much of the omitted material in these books are useful too, but there is a limit to what one can expect to do in one semester.

The course requires an extensive mathematics background. At least three semesters of calculus and one semester of linear algebra are required. The computer program, Matlab, will also be used throughout the semester. The course is designed for IBS doctoral students, but some masters and undergraduate students may wish to take the course. It is expected, though not required, that students will be taking the companion course in microeconomics (Econ 301a) concurrently.
My contact information is:

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Sachar 126
781-736-2242
Office Hours: Wednesdays 3-5.

The teaching fellow for this course is Qi He (zjucamu@brandeis.edu). Qi will run weekly recitation sessions and hold office hours. Students are expected to attend these recitation sessions.

The home page for this course is available through LATTE. Announcements, problem sets, computer programs, and additional handouts will be posted on this page. You are encouraged to check the web page regularly.

If you are a student with a documented disability on record at Brandeis University and wish to have a reasonable accommodation made for you in this class, please see me immediately.

While you are encouraged to discuss the homework problems with others, you are expected to answer problems on your own. Resist the temptation to copy someone else’s answer. This is worse than useless as it is not only a violation of Brandeis University rules but also will huff you into a false sense that you understand the material. More generally, you are expected to be familiar with and to follow the University's policies on academic integrity. See http://www.brandeis.edu/studentaffairs/srcs/ai/index.html. Instances of alleged dishonesty will be forwarded to the Department of Student Rights and Community Standards for possible referral to the Student Judicial System. Potential sanctions include failure in the course and suspension from the University.

The course grade will be based on the problem sets (10 percent), a midterm examination (40 percent), and a final examination (50 percent).

Reading List

This is a forecast rather than a plan; we’ll update as we go along.

1. Macroeconomic Facts, an Overview, and Important Tool I: Time Series Analysis
   
   • stochastic linear difference equations
   
   • state-space representation of linear difference equations
   
   • Markov chains

2. Economic Growth

   (a) Growth with a Fixed Saving Rate
   
   • Wickens, chapter 3.
   
   • Obstfeld and Rogoff, chapter 7.
   
(b) Sources of Growth


3. Consumption and Saving

(a) The Infinite Horizon LQ Permanent Income Model

- Wickens, chapter 4.1 - 4.3
- Uribe and Schmitt-Grohe, chapter 2

(b) Important Tool II: Dynamic Programming

- Wickens, Mathematical Appendix 15.5

(c) The Life Cycle Model

- Wickens, chapter 4.4 - 4.5

(d) Behavioral Theories

(e) Empirical Evidence


4. Investment

- Wickens, chapter 2.7.
- Uribe and Schmitt-Grohe, chapter 3

5. The Labor Market Without and With Unemployment

- Wickens, chapter 4.6-4.7, chapter 10


- Wickens, chapter 2, 4.8 and 16.1 to 16.4
- Uribe and Schmitt-Grohe, chapter 3 and 4
- Hansen, Gary (1985) “Indivisible Labor and the Business Cycle” *Journal of Monetary Economics* 16,
7. Government Expenditures, Revenues, Deficits, and Debt

(a) The Government Budget Constraint
- Wickens, chapter 5

(b) Ricardian Equivalence

(c) Tax Smoothing I: Gallatin-Barro

(d) Tax Smoothing II: Contingent Claims

(e) Political Economy, Discrimination, and History

- Wickens, chapter 6

8. The Open Economy

(a) Consumption and Saving
- Wickens, chapter 7
- Uribe and Schmitt-Grohe, chapter 5

(b) Side Topic: Exorbitant Privilege