

ECON 8050: Macroeconomic Theory II
Department of Economics
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When: Tuesdays and Thursdays 2:00–3:15PM.

Where: Caldwell Hall OG10.

Office Hours: Tuesdays 4:00–5:15PM in my office (512 Brooks Hall).

Teaching Assistant: Jonathan Rawls (jrawls@uga.edu).

Course Description and Objectives: This is the second of two core classes in macroeconomic theory. The course will place a heavy emphasis on the models and techniques that macroeconomists use.

Assignments, Grading, and Important Dates: Evaluation for the course will be based on a midterm, a comprehensive final exam, and eight problem sets. The dates/times for the exams will be chosen with input from the students. The midterm will account for 32% of the course grade, while final exam will count for 60%. The remaining 8% will be based on the problem sets. I strongly encourage you to work together on these problem sets, though what you turn in should be written by yourself.

Course Materials: My lectures will draw on material from a variety of sources. Among them, as indicated below in the course outline, are:

- *Introduction to Modern Economic Growth*, Daron Acemoglu, Princeton University Press, 2008. (**Acemoglu**)
- *Recursive Macroeconomic Theory*, Lars Ljungqvist & Thomas Sargent, Third Edition. MIT Press, 2012. (**LS**)
- *The ABCs of RBCs: An Introduction to Dynamic Macroeconomic Models*, George McCandless. Harvard University Press, 2008. (McCandless)
- *Foundations of International Macroeconomics*, Maurice Obstfeld & Kenneth Rogoff. MIT Press, 1996. (**OR**)
- *Advanced Macroeconomics*, David Romer, Fourth Edition. McGraw-Hill, 2011. (Romer)
- *Recursive Methods in Economic Dynamics*, Nancy Stokey & Robert Lucas. Harvard University Press, 1989. (SL)
- *Macroeconomic Theory: A Dynamic General Equilibrium Approach*, Michael Wickens, Second Edition. Princeton University Press, 2008. (**Wickens**)
- *Notes on Macroeconomic Theory*, Steve Williamson, Unpublished Notes. University of Iowa, 1999. (Williamson)

The books whose initials appear in bold should be available at the University of Georgia Bookstore. Throughout the semester, we will integrate the use of Matlab or Fortran tools for helping to solve our models; you will want a guide for learning these. There are plenty of resources online but couple of good options are:

- *Getting Started with MATLAB: A Quick Introduction for Scientists and Engineers*, Rudra Pratrapp, Third Edition. Oxford University Press, 2009.
- *Matlab: An Introduction with Applications*, Amos Gilat, Second or Third Edition. Wiley Press.
- *Fortran 95/2003 for Scientists & Engineers*, Stephen Chapman, Third Edition, McGraw-Hill Science/Engineering/Math, 2007.

Extra sessions: Throughout the semester, Jonathan and/or I will be offering extra sessions/office hours so you have more opportunities to keep up with the material and to help you master the computational aspect of the course. The exact dates will be determined as we go along.

Academic Honesty: *You are expected not to engage in academic dishonesty* and our class is conducted under the University of Georgia’s [Honor Code](#) and the [Academic Honesty Policy](#). Specifically:

“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: uga.edu/honesty. Lack of knowledge of 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 Outline

(Tentative and Subject to Revision)

1. Basics
 - (a) Math preliminaries
 - LS, Chapter 2.
 - McCandless, Chapter 5.
 - i. Difference equations
 - ii. Markov processes
 - (b) A Simple Two-Period Economy
2. Dynamic Programming
 - LS, Chapters 3 & 4.
 - Acemoglu, Chapter 6.
 - McCandless, Chapter 4.
 - Boileau, Marin, “[A Child’s Guide to Dynamic Programming](#),” Unpublished Notes, University of Colorado.
 - Collard, Fabrice, “[Numerical Methods](#),” Lecture Notes 7: Dynamic Programming, Unpublished Notes, University of Bern.
3. Expected Utility Theory and Complete Asset Markets
 - (a) Uncertainty and Expected Utility Theory.
 - Williamson, Chapter 5.
 - (b) Complete Asset Markets.
 - LS, Chapter 8.
 - Acemoglu, Chapter 17.

4. Real Business Cycle Models

(a) Introduction

i. Background on modern macroeconomics

- Mankiw, Gregory N., 1990. “[A Quick Refresher Course in Macroeconomics](#),” *Journal of Economic Literature*, American Economic Association, Vol. 28(4), Pages 1645–1660, December.
- Blanchard, Olivier J., 2008. “[The State of Macro](#),” National Bureau of Economic Research, Working Paper Series, Number 14259, August.

ii. Rational expectations and the Lucas critique

- Lucas Jr., Robert E., 1976. “[Econometric policy evaluation: A critique](#),” *Carnegie-Rochester Conference Series on Public Policy*, Vol. 1, Pages 19–46.

(b) The Basic RBC Model

- Kydland, Finn E. & Prescott, Edward C., 1982. “[Time to Build and Aggregate Fluctuations](#),” *Econometrica*, Vol. 50(6), Pages 1345–1370, November.
- [Quarterly Review, Federal Reserve Bank of Minneapolis, Quarterly Review](#), Fall 1986, Vol. 10(4).
- King, Robert G. & Rebelo, Sergio T., 2000. “[Resuscitating Real Business Cycles](#),” *Handbook of Macroeconomics*, Edited by J.B. Taylor and M. Woodford, Vol. 1, Chapter 14, Pages 927–1007.
- Campbell, John Y., 1994. “[Inspecting the Mechanism: An Analytical Approach to the Stochastic Growth Model](#),” *Journal of Monetary Economics*, Vol. 33(3), Pages 463–506, June.
- McCandless, Chapter 1, 2, 3, & 5.

i. Empirical features of US business cycles.

ii. Solution Techniques: value function iteration vs. linearization.

- McCandless, Chapter 6.
- Collard, Fabrice, [Numerical Methods](#), Lecture Notes 6: Perturbation Methods, Unpublished Notes, University of Bern.

iii. Calibration, Estimation, Simulation, and Evaluation.

- Gomme, Paul & Rupert, Peter, 2007. “[Theory, measurement and calibration of macroeconomic models](#),” *Journal of Monetary Economics*, Vol. 54(2), Pages 460–497, March.

(c) Extensions of the Basic RBC Model

i. Unemployment

- Hansen, Gary, 1985. “[Indivisible labor and the business cycle](#),” *Journal of Monetary Economics*, Vol. 16(3), Pages 309–327, November.
- McCandless, Chapter 6.

ii. Business Cycle Accounting

- Chari, V.V. & Kehoe, Patrick & McGrattan Ellen R., 1985. “[Business Cycle Accounting](#),” *Econometrica*, Vol. 75(3), Pages 781–836, May.

iii. Money and inflation

- Cooley, Thomas & Gary Hansen, 1989. “[The Inflation Tax in a Real Business Cycle Model](#),” *The American Economic Review*, Vol. 79(4), Pages 733–748, September.
- McCandless, Chapter 8.

5. Consumption and Savings

- Angus Deaton. “Understanding Consumption,” Chapters 1 & 6.

(a) Self-Insurance, Incomplete Markets, and Permanent Income Hypothesis

- LS, Chapters 17 and 18.
- Hall, Robert E., 1978. “[Stochastic Implications of the Life Cycle-Permanent Income Hypothesis: Theory and Evidence](#),” *Journal of Political Economy*, University of Chicago Press, Vol. 86(6), Pages 971–87, December.

(b) Heterogeneous Agents Models.

- Aiyagari, S Rao, 1994. “[Uninsured Idiosyncratic Risk and Aggregate Saving](#),” *The Quarterly Journal of Economics*, MIT Press, vol. 109(3), Pages 659–84, August.

6. Investment

- Hayashi, Fumio, 1982. “[Tobins Marginal q and Average q: A Neoclassical Interpretation](#),” *Econometrica*, Vol. 50, No. 1, Pages 213–224, January.
- OR, Chapter 2.

(a) User cost.

(b) Convex adjustment costs and Q-theory.

(c) Non-convex adjustment costs.

7. Labor Markets

- LS, Chapters 6 & 29.
- Pissarides, Christopher A., 2000, *Equilibrium Unemployment Theory*, Second Edition. MIT Press. Chapters 1 & 2.
- Robert E Lucas Jr. & Edward C Prescott, 1974. “[Equilibrium search and unemployment](#),” *Journal of Economic Theory*, Vol. 7, Issue 2, Pages 188–209, February.
- Richard Rogerson & Robert Shimer & Randall Wright, 2005. “[Search-Theoretic Models of the Labor Market: A Survey](#),” *Journal of Economic Literature*, American Economic Association, Vol. 43(4), Pages 959–988, December.

8. Financial Markets and Finance

(a) Financial Frictions

- Carlstrom, Charles & Tim Fuerst, 1997. “[Agency Costs, Net Worth, and Business Fluctuations: A Computable General Equilibrium Analysis](#),” *The American Economic Review*, Vol. 87(5), Pages 893–910, December.
- Kiyotaki, Nuhuro, & Moore, John, 1997. “[Credit Cycles](#),” *Journal of Political Economy*, Vol. 105(2), Pages 211–248, April.

(b) Asset Pricing

- LS, Chapter 8 & 13.
- Lucas, Robert, 1978. [Asset Prices in an Exchange Economy](#),” *Econometrica*, Vol. 46 (6), Pages 1429–1445, November.
- Wickens, Chapters 10 & 11.

- Mehra, Rajnish & Prescott, Edward C., 1985. “The equity premium: A puzzle,” *Journal of Monetary Economics*, Elsevier, Vol. 15(2), Pages 145–161, March.
- Bodie, Zvi, & Kane, Alex, & Marcus, Alan, 2004. *Investments*. Chapters 8, 9, 20, and 21.

(c) Corporate Finance

- LS, Chapter 13.
- Brealey, Richard, & Myers, Stewart, & Marcus, Alan. *Fundamentals of Corporate Finance*. Chapter 15.

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.*
