ECON7040: MACROECONOMIC THEORY II
Spring 2017

Instructor:	Martin Boileau
Class:	Economics 119; MW 9:30 to 10:45
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COURSE DESCRIPTION

This course is the second part of the core macroeconomic theory doctoral sequence. We will focus our attention on dynamic optimization and general equilibrium models.

The course has two objectives. The first is the presentation of the tools required to study dynamic, stochastic, general equilibrium models. The second is the application of these tools to topics in macroeconomics.

EVALUATION

The assessment for this class consists of a two (2) term tests and a final exam. Tests and final exam are closed notes and closed books. No make-up tests will be given. The tentative schedule and the grade distribution are displayed in the table below.

Evaluation	Date	%
Term Test 1	Week 6: 22 February	25
Term Test 2	Week 13: 12 April	25
Final Exam	11 May: 7:30–10:00pm	50

REQUIRED TEXT

Ljungqvist, Lars and Thomas J. Sargent, *Recursive Macroeconomic Theory*, Cambridge: MIT Press.

BACKGROUND TEXTS

Adda, Jerome and Russell W. Cooper, *Dynamic Economics*, Cambridge: MIT Press.

Barro, Robert J. and Xavier Sala-i-Martin, *Economic Growth*, New York: McGraw Hill.

Blanchard, Olivier J. and Stanley Fischer, *Lectures on Macroeconomics*, Cambridge: MIT Press.

Farmer, Roger E., *The Macroeconomics of Self-Fulfilling Prophecies*, Cambridge: MIT Press.

Romer, David, *Advanced Macroeconomics*, New York: McGraw-Hill.

Sargent, Thomas J., *Dynamic Macroeconomic Theory*, Cambridge: Harvard University Press.

Stokey, Nancy L. and Robert E. Lucas, *Recursive Methods in Economic Dynamics* Cambridge: Harvard University Press.

COURSE OUTLINE

I. Introduction

  1. National Income Accounting

  2. Two Period Economies
- *Boileau*: Two Period Economies: A Review

II. Discrete Time

  1. Dynamic Programming
- *Boileau*: A Child's Guide to Dynamic Programming
- *Ljungqvist and Sargent*: 2.A.1, 3.1

  2. The One-Sector Neoclassical Growth Model

  3. Overlapping Generations Model
- *Romer*: Chapter 2

III. Continuous Time

  1. Dynamic Programming and Hamiltonian
- *Boileau*: A Child's Guide to Optimal Control Theory

  2. The One-Sector Neoclassical Growth Model
- *Romer*: Chapter 2
- *Blanchard and Fisher*: Chapter 2

  3. Perpetual Youth
- Banchard, O., 1985. Debt, Deficits, and Finite Horizon. *Journal of Political Economy* **93**.
- *Blanchard and Fisher*: Chapter 3.3

III. Dynamic Stochastic General Equilibrium Models

  1. Dynamic Programming
- *Ljungqvist and Sargent*: 2.1, 2.2, 2.4, 3.2

  2. A Real Business Cycle Model
- Farmer: Chapters 2 and 3

- *Lungvqist and Sargent*: Chapter 12
- Romer: Chapter 4
- King, Robert G., Charles I. Plosser, and Sergio T. Rebelo, 1988. Production, Growth, and Business Cycles: I. The Basic Neoclassical Model, *Journal of Monetary Economics* **7**.

3. Numerical Issues

- Ljungvqist and Sargent: Chapters 4 and 5
- King, Robert G., Charles I. Plosser, and Sergio T. Rebelo, 2002. Production, Growth, and Business Cycles: Technical Appendix, *Computational Economics* **20**.
- Uhlig, Harald, 1997. A Toolkit for Analyzing Nonlinear Dynamic Stochastic Models Easily.
- Griffoli, Tommaso M., 2013. Dynare: User Guide.

IV. Advances in DSGE Models

1. Monopolistic Competition and Sticky Prices
2. Monetary Economies: CIA, MIU, and Cashless Economies
3. Preferences: Non-Homotheticity, Habit, GHH, Endogenous Discount, Epstein-Zin
4. Shocks: Investment-specific, News, and Noise

V. Search and Matching

1. Matching and Bargaining
2. Monopsony
3. Directed Search
4. Search and Money

V. Policy

1. Time Inconsistency
2. Monetary Policy: Optimal Inflation Rate and Policy Reaction Function
3. Monetary Policy Issue: Zero Lower Bound
4. Fiscal Policy: Ricardian Equivalence and Taxation in Dynamic Economies
5. Fiscal Policy Issue: The Multiplier

University Policies

You should familiarize yourself with the following University of Colorado policies:

1. If you qualify for accommodations because of a disability, please submit to your professor a letter from Disability Services in a timely manner (for exam accommodations provide your letter at least one week prior to the exam) so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities. Contact Disability Services at 303-492-8671 or by email at dsinfo@colorado.edu. If you have a temporary medical condition or injury, see Temporary Injuries guidelines under the Quick Links at the Disability Services website and discuss your needs with your professor.

2. Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, (insert your procedures here). See the campus policy regarding religious observances for full details.

3. Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, color, culture, religion, creed, politics, veteran's status, sexual orientation, gender, gender identity and gender expression, age, disability, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. For more information, see the policies on classroom behavior and the student code.

4. The University of Colorado Boulder (CU Boulder) is committed to maintaining a positive learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct, discrimination, harassment or related retaliation against or by any employee or student. CU's Sexual Misconduct Policy prohibits sexual assault, sexual exploitation, sexual harassment, intimate partner abuse (dating or domestic violence), stalking or related retaliation. CU Boulder's Discrimination and Harassment Policy prohibits discrimination, harassment or related retaliation based on race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. Individuals who believe they have been subject to misconduct under either policy should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127. Information about the OIEC, the above referenced policies, and the campus resources available to assist individuals regarding sexual misconduct, discrimination, harassment or related retaliation can be found at the OIEC website.

5. All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the academic integrity policy of the institution. Violations of the policy may include: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access, clicker fraud, resubmission, and aiding academic dishonesty. All incidents of

academic misconduct will be reported to the Honor Code Council (honor@colorado.edu; 303-735-2273). Students who are found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code Council as well as academic sanctions from the faculty member. Additional information regarding the academic integrity policy can be found at http://honorcode.colorado.edu.