

# ECON7040: MACROECONOMIC THEORY II

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| Instructor: | Martin Boileau                   |
| Class:      | Economics 119; MW 9:30 to 10:45  |
| Office:     | Economics 215; MW 11:00 to 12:00 |
| Phone:      | (303) 492-2108                   |
| E-mail:     | Martin.Boileau@Colorado.EDU      |

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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.

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.

| Value       |                     | %  |
|-------------|---------------------|----|
| Term Test 1 | Week 6: 18 February | 25 |
| Term Test 2 | Week 12: 1 April    | 25 |
| Final Exam  | To be determined    | 50 |

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Ljungqvist, Lars and Thomas J. Sargent, *Real Business Cycles*, Cambridge: MIT Press.

B/ KG X

Adda, Jerome and Russell W. Cooper, *Capital Deepening and Growth*, 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., *Real Business Cycles*, Cambridge: MIT Press.

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

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

Stokey, Nancy L. and Robert E. Lucas, *Dynamic Programming and Control Theory*, Cambridge: Harvard University Press.

# COURSE OUTLINE

## 1. Introduction

1. National Income Accounting
2. Two Period Economies
  - *BFlc* : Two Period Economies: A Review

## 2. Dynamic Programming

1. Dynamic Programming and Hamiltonian
  - *BFlc* : A Child's Guide to Dynamic Programming
  - *BFlc* : A Child's Guide to Optimal Control Theory
2. The One-Sector Neoclassical Growth Model
  - *F e* : Chapter 2
  - Blanchard and Fisher: Chapter 2
3. Perpetual Youth
  - Blanchard, O., 1985. Debt, Deficits, and Finite Horizon. *JFE* 1 *FF PF* 1 *FF* 93.

## 3. The One-Sector Neoclassical Growth Model

1. Discrete Time One-Sector Neoclassical Growth: A Review
  - *BFlc* : A Child's Guide to Dynamic Programming
2. A Real Business Cycle Model
  - Farmer: Chapters 2 and 3
  - Ljungqvist 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,

- Uhlig, Harald, 1997. A Toolkit for Analyzing Nonlinear Dynamic Stochastic Models Easily.
- Grioli, Tommaso M., 2013. Dynare: User Guide.

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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

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

## . P r y

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. University policies regarding classroom behavior are available at  
<http://www.colorado.edu/policies/classbehavior.html>
2. University policies regarding disabilities are available at  
<http://www.colorado.edu/disabilityservices>.
3. University policies regarding religious practice are available at  
[http://www.colorado.edu/policies/fac\\_relig.html](http://www.colorado.edu/policies/fac_relig.html).
4. University policies regarding Sexual Harassment and Amorous Relationships are available at  
<http://www.colorado.edu/odh/>.
5. Information regarding the Honor Code Council is available at  
<http://www.colorado.edu/policies/honor.html>  
<http://www.colorado.edu/academics/honorcode/>.