

UNIVERSITY OF COLORADO

Department of Economics

**ECON7020: MACROECONOMIC THEORY I**

FALL 2007

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**COURSE DESCRIPTION**

This course is an introduction to modern macroeconomic theory. We will focus our attention on dynamic optimization and general equilibrium models. Most of the typical topics in macroeconomics are covered. These topics includes growth, consumption, production, investment, fiscal policy, and monetary policy.

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 test 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.

<b>Evaluation</b>	<b>Date</b>	<b>%</b>
Term Test 1	Week 6: 3 October	25
Term Test 2	Week 11: 7 November	25
Final Exam	20 December 7:30am to 10:00am	50

## REQUIRED TEXT

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

## BACKGROUND TEXTS

Barro, Robert J. and Xavier Sala-i-Martin, 1995, *Economic Growth*, New York: McGraw Hill.

Blanchard, Olivier J. and Stanley Fischer, 1989, *Lectures on Macroeconomics*, Cambridge: MIT Press.

Dixit, Avinash K., 1990, *Optimization in Economic Theory*, Second Edition, Oxford: Oxford University Press.

Farmer, Roger E., 1993, *The Macroeconomics of Self-Fulfilling Prophecies*, Cambridge: MIT Press.

Ljungqvist, Lars and Thomas J. Sargent, 2000, *Recursive Macroeconomic Theory*, Cambridge: MIT Press.

Sargent, Thomas J., 1987, *Dynamic Macroeconomic Theory*, Cambridge: Harvard University Press.

# COURSE OUTLINE

## I. INTRODUCTION

1. Background Issues
  - Blanchard and Fischer: Chapter 1
  - Romer: Introduction
2. Tools and Models
  - Dixit: Chapters 1 through 8
3. A Review of Static Models

## II. REVIEW: TWO-PERIOD ECONOMIES

1. Consumption
  - Boileau, Lecture Notes Sections 1 through 3
2. A Pure Exchange Economy
  - Boileau, Lecture Notes Section 4
  - Farmer: Chapter 4
3. A Production Economy
  - Boileau, Lecture Notes Sections 5 and 6

### III. INFINITE HORIZON ECONOMIES

#### 1. The Solow Growth Model

- Barro and Sala-i-Martin: Chapter 1
- Romer: Chapter 1

Solow, Robert M., 1956, A Contribution to the Theory of Economic Growth, *Quarterly Journal of Economics* **70**, 65–94.

#### 2. Overlapping Generations Models

- Blanchard and Fischer: Chapter 3
- Farmer: Chapter 6
- Romer: Chapter 2, part B

Diamond, Peter A., 1965, National Debt in a Neoclassical Growth Model, *American Economic Review* **55**, 1126–1150.

#### 3. Dynamic Programming and Optimal Control

Dixit: Chapters 10 and 11

- Sargent: Chapter 1

#### 4. The Neoclassical Growth Model

- Barro and Sala-i-Martin: Chapter 2
- Blanchard and Fischer: Chapter 2
- Romer: Chapter 2 part A

## IV. STOCHASTIC ECONOMIES

### 1. Expected Utility Theory

- Dixit: Chapter 9
- Farmer: Chapter 8

### 2. Consumption

- Blanchard and Fischer: Chapter 6 part 2
- Romer: Chapter 7
- Sargent: Chapter 3

Hall, Robert E., 1978, Stochastic Implications of the Life Cycle-Permanent Income Hypothesis: Theory and Evidence, *Journal of Political Economy* **86**, 971–987.

### 3. Investment

- Blanchard and Fischer: Chapter 6 part 2
- Romer: Chapter 8

Hayashi, Fumio, 1981, Tobin's Marginal  $q$  and Average  $q$ : A Neoclassical Interpretation, *Econometrica* **50**, 213–224.

### 4. Linear Rational Expectations Solutions

- Romer: Chapter 6 part B
- Farmer: Chapters 2 and 3

### 5. Real Business Cycle Theory

- Farmer: Chapters 2 and 3
- 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**, 67–82.