



Northeastern University
Department of Economics

Macroeconomic Theory II

CECNG720

Prof. María José Luengo-Prado

Spring 2006

⌚ M/Th. 6:00-7:30pm

🏢 320 BK

⌚ **Office Hours:** M. 2:30pm-4:00pm, Th. 10:00am-11:00am and by appointment.

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Course Description

This is an advanced course in macroeconomic theory which builds on the master's-level course in macroeconomics (CECNG120). We will cover topics on (1) consumption/saving, (2) economic growth, (3) business cycles, (4) unemployment, (5) investment and (6) money.

The first three topics are standard in any Ph.D. macro course that focuses in the real economy. We will cover unemployment and investment because these topics will probably be the most useful for you in terms of future research. We will talk about money only at the end.

The goal of this course is to provide you with an overview of modern macroeconomic research and introducing you to some analytical tools useful beyond macroeconomics. Whenever possible we will be making the connection between macro and micro.

Prerequisites

The prerequisite for this course is CECNG120 (Macroeconomic Theory) or its equivalent. This course also assumes that you have appropriate mathematical background.

Blackboard

We will use Blackboard—<http://blackboard.neu.edu/>—to distribute all course materials (lecture notes, handouts, homework, and announcements). Make sure you can access the course site



and please check it regularly. Use the appropriate “Discussion Board” on Blackboard to ask questions about course content instead of email.

Course Mechanics

I will assign problem sets on a (nearly) weekly basis (10% of your grade); there will be two in-class exams (20% each, Feb. 16 and Mar. 27) and a comprehensive final (50 %, Apr. 27).

I encourage you to work in groups on the problem sets. However, each student must hand in his/her own problem set unless otherwise indicated. In many cases, only by writing all derivations yourself you will get to master a certain tool. Problem sets will not be accepted late. Use the digital drop box on Blackboard to hand in assignments if you cannot come to class the day the assignment is due.

There will be no make-up exams without a legitimate, documented excuse. If you need to make up an exam, you must contact me as soon as possible. Once the exam answer key has been posted on Blackboard, there will be no make-ups.

Textbook and Readings

Required textbook

- David Romer, Advanced Macroeconomics, 3rd edition, McGraw-Hill/Irwin—available at the bookstore.

Other useful books

- It is a good idea to refer to an intermediate undergraduate textbook for background reading. For example, Gregory Mankiw, Macroeconomics, 3rd edition, Worth Publishers.
- For the growth part, there is an undergraduate textbook which is quite good for background. Charles Jones, Introduction to Economic Growth, 2nd edition, W. W. Norton & Company.
- Other useful graduate books include:
 - Olivier Blanchard and Stanley Fischer, Lectures on Macroeconomics, MIT Press.
 - Maurice Obstfeld and Kenneth Rogoff, Foundations of International Macroeconomics, MIT Press.
 - Angus Deaton, Understanding Consumption, Clarendon Lectures in Economics, Oxford University Press.
 - Robert Barro and Xavier Sala-i-Martin, Economic Growth, 2nd Edition, MIT Press.
- Useful math books:
 - Alpha Chiang, Fundamental Methods of Mathematical Economics, McGraw-Hill/Irwin.



- Avinash Dixit, Optimization in Economic Theory, Oxford University Press.

This course assumes that you are familiar with the first 12 chapters in Chiang's book!

Lecture notes

- I will provide you with lecture notes over the course of the semester. I hope that having these notes will allow you to spend less time writing and more time thinking and asking questions during lectures.

Reading from Journals

- Additional articles on the course outline will be posted on blackboard if property rights allow it. If not, instructions on how to obtain them will be provided. The articles selected are often non-technical but very relevant. You should expect questions from these articles on the examinations.

Course Outline

1. Introduction

Conversations with Leading Economists: Interpreting Modern Macroeconomics, Brian Snowden and Howard R. Vane, Edward Elgar Pub., 2000, chapter 1.

2. Consumption and Saving

(3 weeks)

- The Fisher model.
- Ricardian equivalence.
- The PIH/LC model.
- Liquidity constraints.
- Models with uncertainty: Buffer Stock, CCAPM model Empirical evidence.

Readings:

- ⇒ Romer, chapter 7.
- ⇒ Browning, Martin; Crossley, Thomas F., "The Life-Cycle Model of Consumption and Saving," *Journal of Economic Perspectives*, Summer 2001, Vol. 15.
- ⇒ Carroll, Christopher D, "A Theory of the Consumption Function, With and Without Liquidity Constraints," *Journal of Economic Perspectives*, Summer 2001, Vol. 15.
- ⇒ Martin Browning and Annamaria Lusardi, "Household Saving: Micro Theories and Micro Facts," *Journal of Economic Literature* 34(4), 1996.



3. Growth

(4-5 weeks)

- The facts.
- The Solow growth model.
- The Ramsey model.
- OLG models (to introduce fiscal policy).
- Endogenous growth.
- Empirical evidence.

[EXAM 1]

Readings:

- ⇒ Romer, chapters 1-3.
- ⇒ Hall Robert, and Charles Jones, "Why Do Some Countries Produce So Much More Output per Worker than Others?," *Quarterly Journal of Economics*, February 1999, Vol. 114, pp. 831-16.
- ⇒ Mankiw Greg, David Romer and David Weil, "A Contribution to the Empirics of Economic Growth," *Quarterly Journal of Economics*, May 1992.
- ⇒ Romer, Paul M., "The Origins of Endogenous Growth.," *Journal of Economic Perspectives*, Winter 94, Vol. 8 Issue 1, pp. 3-22.
- ⇒ Grossman, Gene M.; Helpman, Elhanan, "Endogenous Innovation in the Theory of Growth," *Journal of Economic Perspectives*, Winter94, Vol. 8 Issue 1, p23-44.
- ⇒ Solow, Robert M, "Perspectives on growth theory," *Journal of Economic Perspectives*, Winter94, Vol. 8 Issue 1, p45-54.

4. Business Cycles

(2-3 weeks)

- The facts.
- A basic real business cycle model and introduction to calibration.
- Nominal rigidities and economic fluctuations: background plus a model with sticky wages.

[EXAM 2]

Readings:

- ⇒ Romer, chapters 4 and 5.
- ⇒ Mankiw N. Gregory, "Real Business Cycles: A New Keynesian Perspective," *Journal of Economic Perspectives* 3:3, Summer 1989.
- ⇒ Manuelli Rodolfo, "Modern Business Cycle Analysis: A Guide to the Prescott-Summers Debate," *Federal Reserve Bank of Minneapolis Quarterly Review* Fall, 1986.
- ⇒ Prescott Edward, "Theory Ahead of Business Cycle Measurement," *Federal Reserve Bank of Minneapolis Quarterly Review*, Fall, 1986.



- ⇒ Summers Lawrence, "Some Skeptical Observations on Real Business Cycle Theory," *Federal Reserve Bank of Minneapolis Quarterly Review*, Fall, 1986.
- ⇒ Romer Christina, "Changes in the Business Cycle: Evidence and Explanations," *Journal of Economic Perspectives*, 13:2, Spring 1999.
- ⇒ Zarnowitz Victor, "Theory and History behind Business Cycles: Are the 1990s the Onset of a Golden-Age?," *Journal of Economic Perspectives*, 13:2, Spring 1999.

5. Unemployment (1-2 weeks)

- Efficiency Wages.
- Search Models.

Readings:

- ⇒ Romer, chapter 9.
- ⇒ Olivier Blanchard; Lawrence F. Katz, "What We Know and we Do Not Know about the Natural Rate of Unemployment", *Journal of Economic Perspectives*, 11:1. Winter, 1997, pp. 51-72.
- ⇒ Richard Rogerson, "Theory ahead of Language in the Economics of Unemployment," *Journal of Economic Perspectives*, 11:1. Winter, 1997, pp. 73-92.

6. Investment (1-2 weeks)

- The cost of capital approach.
- q -theory with an application to the housing market.
- Credit rationing.
- Investment and financial markets.

Readings:

- ⇒ Romer, chapter 8.
- ⇒ Avinash Dixit, "Investment and Hysteresis," *Journal of Economic Perspectives*, 6:1. Winter, 1992, pp. 107-132.
- ⇒ Robert Pindyck, "Irreversibility, Uncertainty, and Investment," *Journal of Economic Literature*, vol. XXIX, 1991, pp. 110-1148.

7. Money (time permitting)

- Definitions.
- The optimal quantity of money.
- Seigniorage, Hyperinflation and the cost of inflation.

[COMPREHENSIVE FINAL]

**TENTATIVE SCHEDULE**

(dates may be subject to change)

WEEK	MONDAY	THURSDAY
Week 1- Jan. 9	FIRST CLASS: Introduction	consumption
Week 2- Jan. 16	Martin Luther King	consumption
Week 3- Jan. 23	consumption	consumption
Week 4- Jan. 30	consumption/Solow	Solow
Week 5- Feb. 6	Solow	Solow
Week 6- Feb. 13	Solow/Ramsey	Exam 1
Week 7- Feb. 20	Presidents' Day	Ramsey
Week 8- Feb. 27	Ramsey/OLG	OLG/AK/Learning
Week 9- Mar. 6	Spring Break	Spring Break
Week 10- Mar. 13	Lucas/Technology	Business Cycles
Week 11- Mar. 20	Business Cycles	Business Cycles
Week 12- Mar. 27	Exam 2	Business Cycles
Week 13- Apr. 3	Business Cycles/Unemployment	Unemployment
Week 14- Apr. 10	Unemployment/Investment	Investment
Week 15- Apr. 17	Patriot's Day	Investment
Week 16- Apr. 24	Money/REVIEW	FINAL