Economics EC 205: Macroeconomic Theory I Fall Semester 2013

Mondays, Wednesdays: 3:00–4:15pm (I+) Call No. 01 80957
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Office hours: Mondays, 1:30–2:30pm; Wednesdays, 5:30–6:30pm.

Other times by appointment. You may also contact me by email in order to set up an appointment to see me if it is not at the set times above.

Administrative Aspects

There will be three exams: two midterms and a final.

Please note the following dates: Monday, October 14, Monday November 11, and Wednesday, November 27–29, are holidays. Monday, December 9, is our last class. We meet on Tuesday, October 15 to make up for Monday, October 14. The class will not meet on Wednesday, October 2nd and will arrange for a make-up class.

Midterm # 1 will take place on Wednesday, October 9; midterm # 2 will take place on Wednesday, November 13 (both during class times). The final exam will take place on Friday, December 13, at 12:00 – 2:00 pm. Please note that Professor Metcalf and I have agreed on mutual changes of our final exam times and they cannot be changed.

A number of homework assignments will be necessary for digesting the material. It will help you focus and stay abreast of the tools. You may work on the homework in teams of maximum three students.

The final exam will be cumulative. The course grade will be based on your performance on all exams and the homework according to the following weights:

Midterm # 1: 20% ; Midterm # 2: 25% ; Final: 45%; Homework: 10%.

BOOKS

The course will draw heavily from an excellent textbook by David Romer and additional material from other textbooks, journals, and unpublished sources. My lectures are designed
to be self-sufficient; you will have access to my handwritten notes on Trunk. I also provide regularly typed notes to help you digest my lectures. The principal text for the course is:


Even though this is our text, I find that its reliance on continuous time methods, that is differential equations and integrals, may complicate the mathematics unnecessarily. Therefore, my lectures will generally be using discrete time tools, that is difference equations and summations and so will the typed notes that I will be making available regularly.

Teaching macro at your level is tricky. It relies on a lot of math, but it is not math. It is about modeling phenomena that are intrinsically macro. Therefore, I have placed a number of intermediate macroeconomics books on three-hour reserve. I strongly recommend that you read one of them, anyone, from cover to cover if your background in macroeconomics is not very strong. That will give you sufficiently familiarity with the subject matter. Still, I will not assume that you have done that and will try to provide important background. There are many good books: Blanchard, Olivier. *Macroeconomics*, 5th edition. Barro, Robert. *Macroeconomics*, various editions. Auerbach, Allan, and Laurence Kotlikoff. *Macroeconomics*, 2nd edition. Williamson, Stephen. *Macroeconomics*, 2010. Fourth Ed. Pearson. I also have a bunch of old editions of various books myself and will be happy to lend them to those who ask me.

Readings marked as downloadable from www.nber.org may be obtained free of charge only if you are accessing them from a Tufts IP address or, off campus, via the Tisch library site. Generally, 95% of economics papers that are already published may be found on the web somewhere, perhaps in their penultimate versions. Sometimes, the authors themselves make them available in pdf on their web pages. Go on Google with the full title in “”, and you will find a lot of things.

A major resource for all subjects of macroeconomics is: *The New Palgrave Dictionary of Economics Online*. Make it a habit to peruse it, look up things, terms, concepts, etc. It is very educational, the articles are written by top experts so as to be accessible to people like you.

The class aims at a dual objective, that is, first to provide the analytical background for an introduction to modern macroeconomics at an advanced level. This requires that you strengthen further your math skills. And, second, to demonstrate the use of these tools in contemporary macroeconomic situations. I consider these indispensable both to those of you who plan to go on studying economics and related disciplines and to those of you who wish to be able to read and to apply macroeconomic tools for the years to come.

To serve these two objectives, it is important that some of the class time be spent on a bit
of technical material. The course assumes some familiarity with the fundamental concepts
of macroeconomics at the undergraduate intermediate level. If you feel you are missing basic
concepts, it is not too late to beef up on a good undergraduate intermediate text. Please
talk to me if you feel you are in that situation. We should then be able to find the right
intermediate text for you. There are a lot of good texts. You will benefit enormously by
reading a good such text *cover-to-cover*!

The course deals with choice-theoretic models of macroeconomic phenomena and em-
phazises mathematical modelling and applications. The standard of rigor maintained in the
classroom will define the level of the course. I will assign a set of homework problems. I
have also planned for some applications of the material to contemporary economic issues.

This class has a very precise role in the MA in economics curriculum. However, the
2007–2009 crisis (with lingering after-effects) has given us, unfortunately, an extraordinary
opportunity to observe a major macroeconomic pathology in action and to use contempora-
neous observations to demonstrate important points.

The page assignments below are the minimum necessary to follow the material. You will
benefit by reading more. Lecture notes of varying quality will be placed in the web page on
trunk.tufts.edu. Still, it will be important for you to take good notes. And above all, 
come and talk to me, ask me questions,

*I am working for You!*

* denotes more advanced optional material.

**OUTLINE**

1. **Introduction**

1. A simple static macro model. Macroeconomic aggregates. From National income to
   personal income.
   Ioannides notes.
   \textbf{R}, Ch. 1, 10–13.

   \textbf{R}, Ch. 1, 1–29. (Note, this is a continuous time treatment: we will do it in discrete
time.)
   Acemoglu. 2009. *Introduction to modern economic growth*. Chapter 2. (on reserve,
   and prepublication version online at trunk course site).

R, Ch. 1, 37–45.
Ioannides notes.

4. Growth Accounting and the Solow residual
R, Ch. 1, 30–32.

R, Ch. 1, 151–154.
Barro, Robert. 1992. Kansas City Federal Reserve Bank Symposium:
Social infrastructure and beyond

2 Economic growth

Descriptive vs. optimal growth. Finite and infinite horizon models. The Ramsey–Cass–Koopmans model. Linearization around the steady state and algebraic treatment of dynamics in discrete time. Please refresh from your notes from Fall semester.

Ioannides notes

R, 49–75. Note, this is a continuous time treatment. We will adapt it to discrete time.

This material is very important for understanding the tools of modern macroeconomics. It is motivated by the Ramsey–Cass–Koopmans problem above. It would be very helpful if you were to tackle the text by

Azariadis, Costas, Intertemporal Macroeconomics, Blackwell, 1993, A
which is unfortunately too advanced for this class. On reserve at Tisch.

A somewhat accessible self-contained treatment of the entire material is:

Galor, Oded, Discrete Dynamical Systems, 2007, G
On reserve at Tisch; manuscript at the course site at trunk.tufts.edu. Also available as e-resource at Tisch (also, can download it but not print it).

An application to the dynamics of fiscal policy.

3 Consumption, investment and economic growth


1. Infinite horizon model.

   Ioannides notes

   Ioannides notes.
   R, Chapter 3, 101–134.

4 The overlapping generations model and neoclassical growth: The Diamond Model


4.1 National Debt and Fiscal Policy, Ricardian Equivalence

1. Ioannides notes.

2. R, Chapter 11, 584–598. Note, this is a continuous time treatment.

3. * The Debt Limit Debate

5 Life Cycle Optimization and Optimal Consumption and Investment Behavior: Applications


2. Investment theory: R, Ch. 8, 405–428;


Or: www.nber.org/papers/w8606.
And
http://cowles.econ.yale.edu/P/cd/d17b/d1784.pdf

6 Models of monetary economies

   Ioannides Notes.

2. Backward and forward solutions of linear difference equations, expectations.
   Ioannides Notes.

   The Wall Street Journal on this academic research:
   http://www.princeton.edu/~markus/misc/MediaMention/
   20080516WSJ_Bernanke%27s%20Bubble%20Laborator.pdf

7 Keynesian macroeconomic theory: fixed-price equilibrium theory vs. price-setting

Class lectures will be self-contained.

1. Ioannides notes.
2. R, Ch. 5, p. 238–244, 244–253.
4. The Liquidity Trap:

7.1 Imperfect Competition and Price Setting


1. R, Ch. 6, 259–261, 268–300.
2. The Canonical New Keynesian Model,
   * R, Ch. 7, 352–361.
3. Inflation and monetary policy:

8 Business Cycle Facts and Real Business Cycle Theory

1. R, Chapter 4, 189–195.
   A simplified RBC model: R, Chapter 4, 201–207.

4. R, Chapter 5, 218, 228.

# 9 Monetary and fiscal policy: sum up

   

2. Monetary policy and the challenge of the Great Recession of 2007:
   
   
   [http://www.bis.org/review/r090902d.pdf?frames=0](http://www.bis.org/review/r090902d.pdf?frames=0)


# 10 Labor Market Frictions and Unemployment: The DMP Model

1. Ioannides notes.

   


   Sections
5. Natural rate of unemployment


http://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.26.3.3

The Beveridge Curve, from the *Job Openings and Labor Turnover Survey*:

http://www.bls.gov/jlt/news.htm

6. *Swedish Academy Citation, full scientific version:*


Using the Beveridge curve

