Overview

This course is for students with a good background in micro theory, macro theory, econometrics, and mathematical techniques applied to economics. Our objective is to develop expertise in the use of models for the analysis of macroeconomic policy questions in open economies. The course relies on recent research with policy focus to build a substantive understanding of current issues in macroeconomics, as well as capability in applications of the core macroeconomic models. The rigor and discipline of mathematical models will give robust foundations to our analysis. Most importantly, our modeling will be oriented to have relevance, in that our analysis possesses potential impact upon policy change.

Prerequisites

Macroeconomic theory at the intermediate level; multivariate calculus and dynamic optimization (rudiments of control theory) are necessary. The course freely uses the techniques of dynamic optimization. As background reading I recommend “Dynamic Optimization in Continuous Time Economic Models (A Guide for the Perplexed)” by Maurice Obstfeld, (http://emlab.Berkeley.EDU/users/obstfeld/e202b/e202b.html). You may also want to look at the math Appendix of R. Barro and X. Sala-i-Martin Economic Growth, second edition, 2004. Yet, if you are really perplexed you better start with Optimization in Economic Theory by Avinash Dixit. This course is open to non-MPA/ID students by permission of the instructor only.

Readings

No single text covers all the material for the course. David Romer’s Advanced Macroeconomics, third edition, 2006, (DR henceforth) is a book that has a nice coverage of recent research in macroeconomics, very much in the style of what Olivier Blanchard and Stanley Fischer Lectures on Macroeconomics, 1989, (BF henceforth) attempted a decade earlier. Because DR is the more up to date, we have selected this for background reading. In fact, given the large amount of material we expect you to read from this source, we have not included DR chapters in the package. As professional economists, you would be well advised to own a copy of both DR and the BF book. In lecture, we will be drawing mostly from these two plus, of course, a number of mostly classical articles in the field. Because this is a course to set up the stage for your understanding of macroeconomics, with a few exceptions I have chosen to direct you to seminal or survey articles in each topic relying on DR for a discussion of the developments thereafter. The reading list is short, under the assumption that you will skim through most of the pieces. Yet, there are two types of readings, some which you are required to read (flagged by *), and other pieces for background clarification.
For those interested in economic development at large, there are a couple of fairly recent books that constitute very stimulating complementary reading, and which provide a good link with material that is covered in lectures:


**Grading**

Grading will be based on:

- a midterm (30%)
- problem sets (20%)
- a final (50%)

The midterm will take place in class on March 11 and the final will be on May 21.

**Why do we do theory?**

This is a recurrent question in a course like this one, which attempts to address very practical issues with relatively abstract models. In a 1994 piece, “The Rise and Fall of Development Economics,” (http://web.mit.edu/krugman/www/dishpan.html) Paul Krugman argues that the utility of modeling, like that of mapmaking, stems from useful simplification. With their inimitable fiction, Argentinean writers A. Bioy Casares and J. L. Borges (under pseudonym B. Lynch Davis) illustrate in a story on maps the importance of the principle of parsimoniousness in Ockham’s Razor (http://en.wikipedia.org/wiki/Occam%27s_Razor):

"... In that empire, the art of cartography reached such perfection that the map of one province alone covered up the whole of a city, and the map of the empire, the whole of a province. In time, those unconscionable maps did not satisfy, and the colleges of cartographers set up a map of the empire which had the size of the empire itself and coincided with it point by point. Less addicted to the study of cartography, succeeding generations understood that this widespread map was useless and not without impiety they abandoned it to the inclemency of the sun and of the winters. In the deserts of the west some mangled ruins of the map lasted on, inhabited by animals and beggars; in the whole country there are no other relics of the disciplines of geography." Suarez Miranda, *Viajes de varones prudentes*, Book IV, Chapter XLV, Urida, 1658.


The contribution of abstraction to analysis is the provision of tractable frameworks to characterize systems we aim to understand, leaving out those details, which are realistic but not essential to the subject being studied. Indeed, as Dani Rodrik remarks, in his highly recommended web log (http://rodrik.typepad.com/dani_rodricks_weblog/2007/09/why-we-use-math.html), that abstract mathematical models possess the quality of aiding clear analysis with explicit linkages between premises and conclusions. Metaphors and intuition more often than not lack the precision needed in intellectual debate for policy formulation.
Course Contents

The course will be focused on five main areas of the contemporary macroeconomics debate: (i) growth theory, (ii) overlapping generations models and social security, (iii) consumption and investment, (iv) business cycles (covering real business cycles and models of unemployment), and (v) a discussion of fiscal and monetary policy.

I. Growth theory

January 31st and February 5 Introduction and the Solow model

DR, Chapter 1.


Feb. 7 and 12 The Ramsey model and optimal savings in the closed economy

DR. Chapter 2. Part A

BF, Chapter 2. Subsections 1 – 3

Feb 14 and February 21 Endogenous growth models

DR Chapter 3. Part A.


Feb 26 Path dependence, policy and economic growth


Feb 28 **Expectational indeterminacy, policy and economic growth**


March 4 **Convergence: Theory, evidence and econometric issues**


March 6 **Policies and Economic Growth**


*End of Topics covered in Midterm*

Midterm date: March 11
II. Overlapping generation models

March 13 The basic setup

DR, Chapter 2. Part B.


March 18 Social security and transitions

BF, Chapter 3, subsection 1-2.


III. Consumption and investment

March 20 and April 1 Consumption

DR. Chapter 7.

April 3 Ramsey in open economy with investment

DR Chapter 8

BF, Chapter 2.4


IV. Business cycles

April 8 Real business cycles

DR. Chapter 4.

April 10 and 15 **Microeconomic foundations of rigidities: A primer**

DR Chapters 5 and 6


Mankiw, G. and D. Romer (1991) “Introduction” in Mankiw G. and D. Romer (eds) *New Keynesian Economics*, Cambridge MIT Press. (this is just a long list of recent contributions that you can use as reference)


**IV. Fiscal and Monetary Policy**

April 17 **Ricardian equivalence**

DR. Chapter 11.1-11.3


April 22 **Tax smoothing and fiscal policy**

DR Chapter 11.4-11.9


April 24 and 29 **Monetary policy: inflation and deficits**

DR, Ch. 10.1-10.2-10.8-10.9


BF Chapter 4. Sections 4.1, 4.2, 4.5 and 4.6

BF Chapter 8, Section 8.2 and Chapter 10, Section 10.5.

May 1 **A discussion on monetary policy**

DR Chapter 10.6-10.7.
