



Department of Economics Course Outline

Term: Fall 2006

Course: **Economics 611.72**
[Special Topics in Macroeconomics]

Section: 01

Time: MW 09:00 ? 10:15

Place: SS 423 (subject to change)

Instructor: Francisco M. Gonzalez

Office: SS 432

Telephone: 220-6709

Office Hours: By Appointment

E-Mail: francisco.gonzalez@ucalgary.ca

Textbook(s):

Romer, David (1996): *Advanced Macroeconomics*, second edition (2001), McGraw-Hill.

Book(s) on Reserve:

Helpman, Ethan, *The Mystery of Economic Growth*, 2005, Harvard University Press.

Easterly, William, *The Elusive Quest for Growth*, 2001, MIT Press.

Aghion, Phillipe and Steven Durlauf (eds). *Handbook of Economic Growth*, Vol. 1A, Amsterdam: North Holland.

Course Outline:

This course is an introduction to the analysis of the problems of macroeconomics. It is the first one of the two courses in the graduate core macroeconomics sequence offered by the Economics Department at the University of Calgary. This course has three objectives: (1) to develop the basic tools that are used in the analysis of dynamic problems in economics; (2) to understand the structure of dynamic general equilibrium models and why these models are useful in macroeconomics; and (3) to apply these tools to the analysis of the central problems of economic growth.

There is a list of readings for this course. For each topic, I have listed a couple of reference books and/or references to leading papers in the field. Information about required readings will be provided in class.

General References

Romer, David (1996): *Advanced Macroeconomics*, second edition (2001), McGraw-Hill.

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

Stokey, Nancy L. and Robert E. Lucas Jr. (1989): *Recursive Methods in Economic Dynamics*, Harvard University Press.

I. Dynamic Optimization: Discrete Time

This part considers dynamic optimization problems in discrete time. We will model and solve typical dynamic economic problems using the tools of dynamic programming. We will use these tools to develop the permanent income hypothesis, the Ricardian equivalence and the Lucas critique, and to understand the role of adjustment costs in investment problems.

A. Theory: Discrete Dynamic Programming

Sargent, Thomas J. (1987): *Dynamic Macroeconomic Theory*, Harvard University Press (chapter 1).

Stokey & Lucas (1989, chapters 3, 4 and 5).

B. ~~Applications~~ and Saving

Romer (1996, chapter 7).

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

2. Investment

Romer (1996, chapter 8).

3. Lucas's Critique

Lucas, Robert E. (1976): "Econometric Policy Evaluation: A Critique", *Carnegie-Rochester Conference Series on Public Policy* 1, 19-46.

II. Dynamic Optimization: Continuous Time

This part considers optimal control problems in continuous time. We will focus on the modeling and solving of typical dynamic economic problems using the maximum principle. In this context we will analyze the one-sector model of optimal growth and the Neoclassical theory of investment.