Department of Economics
Course Outline

		Term:	Fall 2008
Course:	Economics 659 [Macroeconomic Theory]	**Section:**	01
Time:	TR 9:30 – 10:45	**Place:**	SS 423 (subject to change)
Instructor:	Francisco M. Gonzalez		
Office:	SS 432	**Telephone.:**	220-6709
Office Hours:	TR 11:00 – 12:00 (subject to change)	**E-mail:**	francisco.gonzalez@ucalgary.ca

Economics 659
Francisco M. Gonzalez
Fall 2008

Macroeconomic Theory I
Department of Economics
University of Calgary

Overview

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 address central questions about economic growth, unemployment and income inequality.

Requirements

There is a list of readings for this course. For each topic, I have listed a couple of reference books and/or references to papers in the field. Information about required readings will be provided in class. Student performance will be evaluated through a collection of problem sets worth 10 percent, and three midterm exams worth 30 percent each. A passing grade in the problem sets is necessary for passing this course.

Contact Information

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General References

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

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

Pissarides, Christopher A. (2000): *Equilibrium Unemployment Theory*, MIT 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

Sundaram, Rangarajan K. (1996): *A First Course in Optimization Theory*, Cambridge University Press (chapters 6, 11 and 12).

B. Applications:

1. Consumption 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* (December), 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.

A. Theory: The Maximum Principle

Arrow, Kenneth J. and Mordecai Kurz (1970): *Public Investment, the Rate of Return, and Optimal Fiscal Policy*, The Johns Hopkins Press (chapter 2).

B. Applications: Investment

Hayashi, Fumio (1982): "Tobin's Marginal and Average q: A Neoclassical Interpretation", *Econometrica* (January), 213–224.

III. Dynamical Systems

This is an introduction to the analysis of difference and differential equations, including the solution of the simplest linear dynamic systems, the linearization of non-linear systems and the use of phase diagrams.

Azariadis, Costas (1993): *Intertemporal Macroeconomics*, Blackwell (chapters 2, 4 and 6).

Luenberger, David G. (1979): *Dynamic Systems*, John Wiley & Sons (chapters 2 and 9).

IV. Dynamic General Equilibrium Analysis

A. Introduction: Walrasian Models

We begin this part with an introduction to dynamic general equilibrium models. We will focus on equilibrium market clearing models without trading frictions. The main objective is to understand the idea of general equilibrium in the context of the simplest economic models of a society.

Bliss, Christopher (1975): *Capital Theory and the Distribution of Income*, (chapter 3).

Mas-Colell, Andreu, Michael D. Whinston and Jerry R. Green (1995): *Microeconomic Theory*, Oxford University Press, (chapters 19 and 20).

B. The Ramsey Growth Model

The goal is to understand the structure of the Neoclassical growth model, which is one of the workhorse models in macroeconomics. We will use this model to think about the central questions of economic growth.

Romer (1996, chapters 1 and 2).

Barro & Sala-i-Martin (1995, chapters 1, 2 and 4).

Mankiw, N. Gregory (1995): "The Growth of Nations", *Brookings Papers on Economic Activity* 1, 275–326.

Pritchett, Lant (1997): "Divergence, Big Time", *Journal of Economic Perspectives* (Summer), 3–18.

Olson, Mancur (1996): "Big Bills Left on the Sidewalk: Why Some Nations are Rich, and Others Poor", *Journal of Economic Perspectives* (Spring), 3–24.

C. Search Models of the Labor Market

The goal is to understand the structure of equilibrium models with trading frictions, which have become the workhorse models of the labor market. We will use these models to address questions such as: what determines the length of unemployment spells? why are similar workers paid differently?

Romer (1996, chapter 9).

Pissarides (2000, chapter 1 and 2).

Shimer, Robert (2005): "The Cyclical Behavior of Equilibrium Unemployment and Vacancies", *American Economic Review* 95, 25–49.

Hornstein, Andreas, Per Krusell and Giovanni L. Violante (2006): "Frictional Wage Dispersion in Search Models: A Quantitative Assessment", Federal Reserve Bank of Richmond Working Paper 2006–07.

Grade Determination and Final Examination Details:

Tests and final exams are marked on a numerical (percentage) basis, then converted to letter grades. The course grade is then calculated using the weights indicated above. As a guide to determining standing, these letter grade equivalences will generally apply:

A+	90 – 100	B	71 – 75	C-	57 – 59
A	85 – 89	B-	67 – 70	D+	54 – 56
A-	80 – 84	C+	63 – 66	D	50 – 53
B+	76 – 79	C	60 – 62	F	0 - 49

If, for some reason, the distribution of grades determined using the aforementioned conversion chart appears to be abnormal the instructor reserves the right to change the grade conversion chart if the instructor, *at the instructor's discretion*, feels it is necessary to more fairly represent student achievement.

A passing grade on any particular component of the course is not required for a student to pass the course as a whole.

Non-programmable calculators will not be allowed during the writing of tests or examinations.

Tests and exams will not involve multiple choice questions.

Students' Union Vice-President Academic:
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        www.ucalgary.ca/sue/

Notes:

- Students seeking reappraisal of a piece of graded term work (term paper, essay, etc.) should discuss their work with the Instructor *within fifteen days* of the work being returned to the class.
- It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course

Safewalk / Campus Security: 220-5333

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FG/mi
2008-15-08