COURSE OBJECTIVES AND PREREQUISITES

This course provides an overview of most of the core topics in macroeconomics. The goal is to learn how to apply the workhorse models of modern macro: the Solow growth model, the Cass-Koopmans and Diamond optimal growth models, recent models of endogenous growth and technological progress, Real Business Cycle models, the Lucas supply curve, the Permanent Income Hypothesis and its extensions, Tobin’s q-theory of investment, the Mortensen-Pissarides search model of unemployment, Kydland and Prescott’s model of dynamic inconsistency, Barro’s tax-smoothing model, and Ricardian Equivalence. The focus will be on theory, but students should be able to understand and interpret empirical work as well.

There are three major omissions from the course. First, monetary theory is not covered. Money is either exogenous or abstracted from entirely. Second, most of the models implicitly assume a complete markets/representative agent structure. Third, recent developments in New Keynesian macro will not be covered very extensively. Monetary theory, incomplete markets, and sticky price models are covered in Econ 809.

COURSE STRUCTURE

The course is divided into three main parts. The first part covers growth theory, the second part covers business cycles, and the third part covers government policy. Since the class may contain a mixture of MA and PhD students, the technical level of the material may at times be a bit difficult for MA students and a bit too easy for the PhDs. MA students are only responsible for the material in the textbook and a few additional articles. PhD students who are preparing for the macro comp are responsible for all the readings. The exams and problem sets will be the same for both groups of students.

COURSE EVALUATION

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<tr>
<th>Weight in Grade</th>
<th>Problem Sets</th>
<th>– 30%</th>
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<tr>
<td></td>
<td>Midterm exam (Tuesday, October 21)</td>
<td>– 35%</td>
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<td>Final exam (date to be arranged)</td>
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The only way to learn macro is to do macro. Therefore, a key part of this course is a sequence of (approximately) bi-weekly problem sets. Students are encouraged to work in groups, but everyone must turn in their own copy. The problem sets are available as PDF files on the class webpage (at www.sfu.ca/kkasa/).
COURSE MATERIALS

There is one required book for this course: *Advanced Macroeconomics*, by David Romer (2nd Edition, 2001) published by McGraw-Hill. There are also a number of journal articles, working papers, and supplementary notes that are available for download on the course webpage. PhD students are encouraged to obtain a copy of Ljungqvist and Sargent’s text, *Recursive Macroeconomic Theory*, particularly since this is the likely text for Econ 809. Ljungqvist and Sargent is more advanced than Romer’s book. It is a good source for additional material on dynamic optimization, incomplete markets, and monetary theory. Also recommended is Carl Walsh’s recent text, *Monetary Theory and Policy*, which is a good source for New Keynesian models. Sargent’s classic texts *Macroeconomic Theory* and *Dynamic Macroeconomic Theory*, both published in 1987, are still useful and still in print. Finally, for a more rigorous and technical presentation of growth theory, students should consult Barro and Sala-i-Martin’s text, *Growth Theory*.

Romer’s book is available at the campus bookstore and on reserve at the library.

COURSE OUTLINE AND READINGS

Readings marked with a (*) are not required for the MAs, but should be read by the PhD students.

I. BACKGROUND AND OVERVIEW (2 lectures)

- **Sept. 2-4** — No Class (Econ 798 meets instead)
- **Sept. 9** — Introduction and Overview
  - Sargent (1984), “Autoregressions, Expectations, and Advice”
- **Sept. 11** — Dynamic Optimization Review: Euler Equations, Bellman Equations, and Hamiltonians
  - Stokey (2003), “Introduction to Optimal Control”

II. GROWTH THEORY (5 lectures)

- **Sept. 16** — Solow Model Review/Intro. to the Cass-Koopmans Model
  - Romer, Chpt. 1 and Chpt. 2 (pgs. 47-55)
- **Sept. 18** — The Cass-Koopmans Model
  - Romer, Chpt. 2 (pgs. 55-74)
- **Sept. 23** — The Diamond Model
  - Romer, Chpt. 2 (pgs. 75-90)
  - Problem Set 1 due in class
Sept. 25 – Endogenous Growth
Romer, Chpt. 3 (pgs. 98-125, 133-138)

Sept. 30 – Endogenous Growth
Romer, Chpt. 3 (pgs. 143-160)
* Parente & Prescott (1994), “Barriers to Technology Adoption and Development”

III. BUSINESS CYCLES (4 lectures)

Oct. 2 – Business Cycle Facts and Methodology
Romer, Chpt. 4 (pgs. 168-174)

Oct. 7 – The Basic Real Business Cycle Model
Romer, Chpt. 4 (pgs. 174-196)
* Prescott (1986b), “Response to a Skeptic”
Problem Set 2 due in class


Oct. 14 – Further Extensions of RBC Models/Criticisms of RBC Models
Romer, Chpt. 4 (pgs. 196-212)

IV. MISCELLANEOUS TOPICS (6 lectures)

Oct. 16 – The Lucas Supply Curve
Romer, Chpt. 6 (pgs. 265-279)

Oct. 21 – Midterm Exam (Closed Book)
Problem Set 3 due in class
Oct. 23 – Consumption: The Permanent Income Hypothesis
Romer, Chpt. 7 (pgs. 330-348)

Oct. 28 – Extensions of the Permanent Income Hypothesis
Romer, Chpt. 7 (pgs. 348-362)

Oct. 30 – Investment: Tobin’s Q
Romer, Chpt. 8 (pgs. 367-391)

Nov. 4 – Investment and Financial Market Imperfections: The Financial Accelerator
Romer, Chpt. 8 (pgs. 392-405)
Problem Set 4 due in class

Nov. 6 – Unemployment: The Mortensen-Pissarides Model
Romer, Chpt. 9 (pgs. 410-412 and 444-453)

V. MONETARY AND FISCAL POLICY (5 lectures)

Nov. 11 – No Class (Remembrance Day)

Nov. 13 – Inflation, Money Growth, and Interest Rates
Romer, Chpt. 10 (pgs. 468-478 and 510-524)

Nov. 18 – The Time Inconsistency of Optimal Monetary Policy
Romer, Chpt. 10 (pgs. 478-482)
Problem Set 5 due in class

Nov. 20 – Dealing with Time Inconsistency
Romer, Chpt. 10 (pgs. 483-492)
* Barro & Gordon (1983), “Rules, Discretion and Reputation in a Model of Monetary Policy”
* Stokey (2002), “Rules vs Discretion After Twenty-five Years”

Nov. 25 – Fiscal Policy: Ricardian Equivalence
Romer, Chpt. 11 (pgs. 530-541)

Nov. 27 – Fiscal Policy: Tax-Smoothing
Romer, Chpt. 11 (pgs. 541-547)
* Aiyagari et al. (2002), “Optimal Taxation without State-Contingent Debt”

Dec. 3-12 – FINAL EXAM (exact date not yet decided)
Problem Set 6 due