UNIVERSITY OF SASKATCHEWAN

Department of Economics

ECON 874.3 (02)

ADVANCED MACROECONOMIC THEORY

T2: 2012/13

Course Details

Venue: TR 14:30-15:50, room: TORV 125

Prerequisite(s): Econ 801 or equivalent

Course Objective: This course introduces the concept of dynamic programming and demonstrates its application to a number of macroeconomic problems. The level of the course is chosen such as to equip students with some of the essential tools required to understand a wide range of classical and recent contributions in the field. Econ 801 and Econ 874 together cover many of the central areas of macroeconomics.

Required Textbook: See below.

Website: Some materials will be available on the course website on PAWS.

Instructor

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Office Hours: Monday, 13:30-14:15 and Thursday 16:10-16:50, or by appointment (check PAWS for changes in office hours)

Tentative Course Outline and Readings

0. General Introduction

   Chari, V. V. and Patrick J. Kehoe (2006): "Modern Macroeconomics in Practice: How Theory Is Shaping Policy," *Journal of Economic Perspectives*, vol. 20(4), pages 3-28.

1. Introduction to Dynamic Programming

   LS, Chapter 3 and Chapter 1

   OR, Chapters 1, 2

   Stokey, N. and R. Lucas: *Recursive Methods in Economic Dynamics*, Harvard University Press, 1989; Chapters 4 and 9 (Chapters 3, 7 and 8 provide the mathematical background)

   Deaton, Angus: *Understanding Consumption*, Oxford University Press, 1992; Chapters 1-3

2. Asset Pricing

LS, Chapter 13.1-13.9 and Chapter 14.1-14.4 [LS2, Chapter 13.1-13.9, 13.11-13.13]

LS, the rest of chapters 13 and 14

OR, Chapter 5

Mehra, Rajnish and Edward C. Prescott (1985): "The Equity Premium: A Puzzle," *Journal of Monetary Economics* 15: 145-161.

Tirole, Jean (1985): "Asset Bubbles and Overlapping Generations," *Econometrica*, vol. 53(6), pages 1499-1528.

Santos, Manuel S. and Michael Woodford (1997): "Rational Asset Pricing Bubbles," *Econometrica*, vol. 65(1), pages 19-58.

3. Buffer-stock Saving and Liquidity Constraints

LS Chapter 18.1-18.7, 18.14-18.16 [LS2, Chapter 17.1-17.7, 17.13-17.15]

Deaton, Angus (1991): "Saving and Liquidity Constraints," *Econometrica*, Vol. 59, No. 5, pp. 1221-1248.

Carroll, Christopher D. (1997): "Buffer-stock saving and the life cycle/permanent income hypothesis," *Quarterly Journal of Economics* CXII(1), pp. 1-55.

Dynan, Karen E. (1993): "How prudent are consumers?" *Journal of Political Economy* 101(6), pp. 1104-1113.

Aiyagari, S. Rao (1994): "Uninsured Idiosyncratic Risk and Aggregate Saving," *The Quarterly Journal of Economics*, Vol. 109, No. 3, pp. 659-684.

4. Unemployment and Job Search

Pissarides, Chapters 1 and 2

LS, Chapter 26.1-26.7

Mortensen, Dale (1977): "Unemployment Insurance and Job Search Decisions," *Industrial and Labor Relations Review* 30(4), pp. 505-517.

Baily, M.N. (1978): "Some Aspects of Optimal Unemployment Insurance," *Journal of Public Economics* 10, 379-402.

Chetty, R. (2006): "A General Formula for the Optimal Level of Unemployment Insurance," *Journal of Public Economics* 90 (2006) 1879-1901.

Gruber, J. (1997): "The Consumption Smoothing Benefits of Unemployment Insurance," *American Economic Review*, Vol. 87(1), 192-205.

5. Economic Growth

N. Gregory Mankiw; David Romer; David N. Weil (1992): "A Contribution to the Empirics of Economic Growth," *The Quarterly Journal of Economics*, Vol. 107, No. 2. (May, 1992), pp. 407-437.

Barro, Sala-i-Martin, Chapters 1.1-1.3, 2.1-2.6, 4.1, 6

Barro, Sala-i-Martin, Introduction I.1-I.5, Chapters 5, 7, 8

Aghion, Howitt, Introduction, Part I (all), Chapter 7

Optional topics:

6. Money and Informational Frictions
   Wallace, Neil (1992): "The Lucas Signal Extraction Model. A Finite State Exposition with Aggregate Real Shocks," *Journal of Monetary Economics* 30, pp. 433-447.
   Walsh, C.E.: *Monetary Theory and Policy*, 3rd edition, MIT Press, 2010, Chapter 5.2 OR, Chapter 8
7. Money as a Medium of Payment
   LS, Chapter 26.1-26.3, 26.5 [LS2, Chapter 24.1-24.3, 24.5]
   Walsh, C.E.: *Monetary Theory and Policy*, 3rd edition, MIT Press, 2010, Chapters 2 and 3
8. Money and Sticky Prices, and Monetary Policy
   Jordi Galí: *Monetary Policy, Inflation, and the Business Cycle*, Princeton University Press, 2008, Chapters 3 to 5.
   Richard Clarida & Jordi Gali & Mark Gertler, 1999: "The Science of Monetary Policy: A New Keynesian Perspective," *Journal of Economic Literature*, American Economic Association, vol. 37(4), pages 1661-1707, December.
   Walsh, C.E.: *Monetary Theory and Policy*, 3rd edition, MIT Press, 2010, Chapters 6, 7 and 8
9. Social Insurance
   LS, Chapters 20 and 22.1-22.3 [LS2, Chapters 19 and 21.1-21.3]
   Hopenhayn, Hugo A and Nicolini, Juan Pablo (1997) "Optimal Unemployment Insurance," *Journal of Political Economy*, University of Chicago Press, vol. 105(2), pages 412-38, April.

Required readings for each topic are printed in **bold** font.

Please note that this is a tentative list of topics, and that both the course outline and the list of readings may be updated during the term. We will cover topics 1-5. Depending on students' interests and time permitting, we may also cover one of the optional topics 6-9.

Textbooks

Required Textbook:

Lars Ljungqvist and Thomas J. Sargent: *Recursive Macroeconomic Theory*, third edition, MIT Press, Cambridge (MA) and London, 2012. [referred to as **LS**]

Note: For our purposes, the second edition of this book will do just fine, too. The second edition is available as an online resource through the library webpage. Where different, the relevant chapters in the second edition are given as [LS2: Chapter xx] in the syllabus above.

Recommended Books (for the unemployment and growth parts):

Christopher Pissarides, *Equilibrium Unemployment Theory*, MIT Press, Cambridge (MA) and London, 2000.

Robert J. Barro and Xavier Sala-i-Martin: *Economic Growth*, second edition, MIT Press, Cambridge (MA) and London, 2004.

Other relevant books:

Maurice Obstfeld and Kenneth Rogoff, *Foundations of International Macroeconomics*, MIT Press, Cambridge (MA) and London, 1996. [referred to as **OR**]

Philippe Aghion and Peter Howitt, *The Economics of Growth*, MIT Press, Cambridge (MA) and London, 2009.

Most of these books (except LS, which is available online, and Aghion and Howitt) are available from the library.

Grading

There will be three components to your grade:

Description	Date	Weight
Participation		5%
Midterm Exam	TBA	25%
Final Exam	TBA	70%

The weight of the midterm will be shifted to the final if this results in a better overall grade.

Exams: Exams will be cumulative and test your understanding of the subject material and your ability to analyse and formulate solutions to specific problems. The problem sets are intended to assist you in the preparation for the exams, but note that exam questions are typically different from problem set questions. The midterm exam is closed book. No electronic devices will be permitted during the exam, with the exception of simple calculators.

The final exam will either be a three-hour closed book exam similar in style to the midterm, or a take-home exam. The form of the final exam will be determined based on students' preferences after the midterm.

Problem Sets: There will be several problem sets, covering all major topics of the course. You will have the option to hand them in to get feedback. All problem sets will be discussed in class.

Presentation: All students will be **required** to give a short (20-30 min) presentation on a macro-related topic of their choice during the second half of the term.

Academic Integrity

Please note that academic dishonesty is subject to severe penalty at the University of Saskatchewan. Any form of conduct not in line with the basic rules of academic integrity, including cheating and plagiarism, will not be tolerated.
This course will conform to the academic requirements and standards, including *Academic Misconduct* (http://www.usask.ca/university_secretary/honesty/StudentAcademicMisconduct.pdf) and the rules of *Student Appeals in Academic Matters* (http://www.usask.ca/university_secretary/honesty/Student_Academic_Appeals.php).
See http://www.usask.ca/university_secretary/honesty/ for details.

Attachment

"Integrity defined," also available at
http://www.usask.ca/university_secretary/pdf/dishonesty_info_sheet.pdf