Department of Economics
Course Outline

		Term:	Winter 2006
Course:	Economics 759 [Advance Macroeconomic Theory]	**Section:**	01
Time:	TR 9:30 ? 10:45	**Place:**	SS 423 (subject to change)
Instructor:	Dr. Z. Janko		
Office:	SS 450	**Telephone:**	220-6101
Office Hours:	by appointment	**E-Mail:**	zjanko@ucalgary.ca

Course Description:

The primary objective of this course is to develop proficiency at using computational dynamic methods needed to make original contributions in applied macroeconomics. We will explore dynamic general equilibrium models starting with the standard real business cycle model and its extensions. We will then look at models with taxation, money and nominal rigidity. We will finish with a small open economy model. The method we will use is one where log-linear decision rules are obtained. If time allows, I will explore alternative topics in macroeconomics beyond business cycle fluctuations towards the end of the course.

Students can use any programming language or software package, however Matlab is the preferred tool. A relatively inexpensive student version is available on line.

Lastly, there are many alternative programs that can be used to solve log-linear approximations of dynamic stochastic models, however I will make use of one written by H. Uhlig. Students are encouraged to use this program through out the class.

Time permitting, we will cover other topics in Macroeconomics towards the end of the course. Although there will be no final exam to test you on these topics you will be responsible for all material covered in class in the Comprehensive Macroeconomic Exam.

The reading list for the other topics will be provided later in the term.

- A series of homework assignments where you will be asked to solve models related to the reading/class. Written reports containing answers must be turned in along with printouts of computer programs. You may work together on the homework, however each student must write and turn in his/hers own work.
- An exam covering the Business Cycle literature as presented in class and covered in readings.
- A short term-paper applying the computational method studied in this course. The topic of the paper should be discussed with me. The paper is due on the last day of class.
- A class presentation of one of the papers in the reading.

The distribution of the grade is as follows:

Homework	30%
Exam	30%
Class Presentation	10%
Term Paper	<u>30%</u>
	100%

<u>Readings:</u>

Business Cycle (BC)

Kydland, F. and E. Prescott (1982) "Time to Build and Aggregate Fluctuations," *Econometrica*. (JSTOR)

Long, J. and C. Plosser (1983) "Real Business Cycle," *Journal of Political Economy*. (JSTOR)

King, R., C. Plosser and Rebelo (1988) "Production, Growth and Business Cycles: I," *Journal of Monetary Economics*. (Library)

BC: Solution Method

Cambell, J. (1994) Inspecting the Mechanism: An analytical approach to the stochastic growth model, " *Journal of Monetary Economics*, vol. 33, pp.463-506. (Library)

Christiano, L. (2002) "Solving Dynamic Equilibrium Models by a Method of Undertermined Coefficients," *Computational Economics*, vol. 20, pp.21-55. (IDEAS)

Uhlig, H., 1999, "A Toolkit for Analyzing Nonlinear Dynamic Stochastic Problems Easily," *CentER*. (On blackboard)

BC: Labor Market

Hansen, G. (1985), "Indivisible Labor and the Business Cycle," *Journal of Monetary Economics*, 16(3), 309-327. (Library)

Hansen, G. and Wright (1992), "The Labor Market in Real Business Cycle Theory," *Federal Reserve Bank of Minneapolis Quarterly Review*, 16(2), 2-12. (On blackboard)

Kydland, F.E. and E.C. Prescott, 1982, "Time to Build and Aggregate Fluctuations," *Econometrica*, vol. 50, pp. 1345-1370. (JSTOR)

Cho, J. and T. Cooley (1994) "Employment and Hours over the Business Cycle," *Journal of Economic Dynamics and Control.* (Library)

BC: Variable Capital Utilization

Burnside, C and M. Eichenbaum (1996) "Factor Hording and the propagation of Business-Cycle Shocks," *American Economic Review*, vol. 86, pp.1154-1174. (JSTOR)

Burnside, Eichenbaum, and S. Rebelo (1995) "Capital Utilization and Returns to Scale," in *NBED Macroeconomics Annu*al, pp. 67-110. (IDEAS)

Greenwood, Hercowitz, and Huffman (1988) "Investment, Capacity Utilization and

Business Cycle," *American Economic Review*. (JSTOR)

BC: Government Policy/Taxation:

Baxter and King (1993) "Fiscal Policy in General Equilibrium," *American Economic Review, vol.*83, pp. 315-34. (JSTOR)

Gavin, Kydland, and Pakko (2004) "Monetary Policy, Taxes and the Business Cycle, *working paper, FRB of St. Louis*. (on blackboard)

Chari, V V & Christiano, Lawrence J & Kehoe, Patrick J, 1994. "Optimal Fiscal Policy in a Business Cycle Model," *Journal of Political Economy*, Vol. 102 (4) pp. 617-52. (JSTOR)

BC: Money and the Business Cycle

T. Cooley and G. Hansen (1995) "Money and the Business Cycle," chapter 7 of Frontiers of Business Cycle Research, Princeton University Press. (Library - reserve)

T. Cooley and G. Hansen (1989) "Inflation Tax in a Real Business Cycle Model" *American Economic Review*, pp. 733-748. (JSTOR)

Chari, Keheo and McGrattan (2000) "Sticky Price Models of the Business Cycle: Can the Contract Multiplier Solve the Persistence Problem?" *Econometrica*, vol. 68, pp. 1151-79. (JSTOR)

Christianno, Eichenbaum and Evans (1997), "Sticky Price and Limited Participation Models: A

Comparison," *European Economic Review*, vol. 41, pp. 1173-1200. (Library)

Christiano, Eichenbaum and Evans (2001), "Nominal Rigidities and the Dynamic Effects of a Shock to Monetary Policy," *Working Paper*, May 2001. (on blackboard)

Kim, J., 2003, "Contract Multiplier Revised: Solving the Persistence Problem in a Model with Staggered Contracts," *Federal Reserve Bank of Minneapolis*. (on blackboard)

Yun, T., 1996, "Nominal Price Rigidity, Money Supply Endogeneity, and Business Cycles," *Journal of Monetary Economics*, vol. 37, pp. 345-370. (Library)

BC: Small Open Economy

Mendoza, E.G., 1991, "Real Business Cycles in a Small Open Economy," *American Economic Review*, vol. 81, pp. 797-818.

S. Schmitt-Grohe and M. Uribe (2003), "Closing Small Open Economy Models", *Journal of International Economics*, vol. 61, pp. 163-185. (Library).

Ali Dib (2003), "An estimated Canadian DSGE model with nominal and real rigidities," *Canadian Journal of Economics*, vol. 36, pp. 949-972. (JSTOR)

Marc-Andre Letendre, (2004) Capital utilization and habit formation in a small-open economy model," *Canadian Journal of Economics*. (JSTOR)

Notes:

Make-up examinations and deferred examinations will not be given except in cases of extreme personal emergencies. Also, examinations will not be given before the indicated dates. Students who are unable to write the midterm because of a **documented** illness, family emergency or religious observance will have the midterm weight shifted to the term paper.

Safewalk/Campus Security: 220-5333

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ZJ:pst
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