

# Department of Economics Course Outline

		Term:	Winter 2005
Course:	Economics 611.44 [Applied Econometric Time Series]	Section:	01
Time:	TBA	Place:	SS 423 (subject to change)
Instructor:	Dr. F.J. Atkins		
Office:	SS 410	Telephone:	220-5864
Office Hours:	By Appointment	E-Mail:	atkins@ucalgary.ca

### **Textbook(s):**

There is no required text for this course. A number of suitable textbooks exist. This list is not exhaustive.

Time Series References

- Walter Enders, *Applied Econometric Time Series, 2nd Edition*, Wiley Series in Probability and Mathematical Statistics, 2003.
- James D. Hamilton, Time Series Analysis, Princeton University Press, 1994
- Carlo Favero (2001) Applied Macroeconometrics Oxford University Press.
- GS Madalla & IM Kim (1998) Unit Roots, Cointegration and Structural Change Cambridge University Press

General Econometric References

- R. Davidson and J. MacKinnon, *Estimation and Inference in Econometrics*, Oxford University Press, 1993.
- William H. Greene, Econometric Analysis, Macmillan, 1993
- J. Johnston and J. Dinardo, *Econometric Methods*, 4th Edition, McGraw-Hill Ryerson, 1997.
- G.G. Judge, W.E Griffiths, R.C Hill, and T.-C. Lee, The Theory and Practice of Econometrics, Wiley, 1980

#### **Book(s) on Reserve:**

#### None

### **Course Outline:**

This is a readings course on applied time series. A tentative outline is below. Further details will follow.

1.	Introduction to Time Series
2.	Unit Roots
3.	Vector Autoregressions

- 4. Co-integration
- 5. Non-linear Models of Time Series
- 6. Structural Change

## **Course Requirements:**

The requirements of this course are that you present some important papers in time series econometrics and write an empirical paper. The list of papers that you must present will be indicated in the reading list that is to follow. The empirical paper is divided into four stages. For the first three stages you are required to make a presentation as well as to hand in a written draft. A brief outline of each stage is below. Further details and due dates for each will follow.

Stage 1: Present and critique an empirical article in macroeconomics that is of interest to you. Collect the data that you would need in order to reproduce the results, calculate descriptive statistics.

Stage 2: Box-Jenkins identification and estimation. Take the data you collected in stage 1 and perform a univariate analysis of each variable. Include autocorrelation and partial autocorrelation functions, estimates of the spectrum, tests for stationarity, selection and estimation of ARIMA models.

Stage 3: Estimation of model and hypothesis testing.

Stage 4: Final draft of paper.

# Grade Determination and Final Examination Details:

Class Presentations	20%	20%
Stages 1 to 3	10% each	30%
Stage 4	50%	50%

Both the midterm and final examinations will be take home exams. Students seeking reappraisal of a piece of graded term work should discuss their work with the instructor within two weeks of the work being returned in class.

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## **Blackboard:**

This course will make use of Blackboard - students who are registered in the course can log on at <a href="http://blackboard.ucalgary.ca/webapps/login">http://blackboard.ucalgary.ca/webapps/login</a>

Safewalk / Campus Security: 200-5333

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