STAT 3490
Time Series Analysis
Winter 2010

Instructor: Dr. A. Thavaneswaran
326 Machray Hall
PH: 474-8984
Email: thavane@cc.umanitoba.ca
Web: http://home.cc.umanitoba.ca/~thavane/

Office Hours: Monday, Wednesday, Friday 10:30-11:30 a.m.
(or by appointment)

Class Time: 8:30-9:30 a.m. Monday, Wednesday, Friday

Text: *Statistical Methods for Forecasting*, by Abraham, B. and Ledolter, J. (1983). Published by John Wiley.

Topics: This course will cover some topics in time series analysis. After briefly reviewing the standard regression theory, the theory and application of time series forecasting techniques will be studied. Statistical software SAS will be used for analysis. Topics will be selected from the following list (and with luck, will include them all):

- Introduction and Summary (Ch. 1)
- The regression model and its application in forecasting (Ch. 2)
- Regression and exponential smoothing (Ch. 3)
- Stochastic time series models (Ch. 5)
- Seasonal autoregressive integrated moving average models (Ch. 6)
- GARCH Models

Assignments: There will be 3 or 4 assignments, and some problems will be marked.

Additional (ungraded) exercises will be given frequently in class. Success in this course depends strongly on the problem-solving skills you will develop from doing these exercises. For the same reason, your work on assignments should be essentially an "individual effort."

Mark Breakdown:

Assignments	15%
Mid-Term Test 1 (Feb. 8/10)	20%
Mid-Term Test 2 (Mar. 22/10)	20%
Final Exam (TBA)	45%

Voluntary Withdrawal: March 19, 2010

Academic Dishonesty: The possession of unauthorized material in an examination, including "cribnotes," whether handwritten or contained within a computer/calculator, is considered by the Faculty of Science as cheating. A general statement of the University policy on academic integrity is in the *2009-2010 Undergraduate Calendar*, p. 29.