

STAT 7260, CRN 14749
Time Series Analysis
Fall 2016

Instructor: Dr. A. Thavaneswaran
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Office Hours: Tuesday & Thursday, 10:30-11:20 a.m.

Class Time: Slot 6, 11:30 a.m. to 12:45 p.m. Tuesdays & Thursdays

Text: *Time Series Analysis, Univariate and Multivariate Methods*, by W.S. Wei. Published by Addison Wesley, 2nd Edition, 2006.

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 techniques will be studied. Topics will be selected from the following list (and with luck, will include them all):

- Fundamental Concepts (Ch. 2)
- Stationary and Non-Stationary Time Series Models (Ch. 3 & 4)
- Forecasting, Model Identification, Parameter Estimation, etc. (Ch. 5, 6 & 7)
- Seasonal Time Series Models (Ch. 8)
- Intervention Analysis and Transfer Function Models (Ch. 10 & 14)
- Time Series Regression, GARCH Models, State Space Models & Kalman Filter (Ch. 15 & 18)

Assignments: There will be about five assignments, and some problems will be marked. There will be two midterm tests.

Additional (ungraded) exercises will be given frequently in class. Some of the assignment questions will be taken from these. 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 & Quizzes	20%
	Midterm Test (TBA)	30%
	Final Exam (TBA)	<u>50%</u>
	Total	100%

Voluntary Withdrawal: November 18, 2016

Academic Dishonesty: It is important that you understand what constitutes academic dishonesty and that you are familiar with the very serious consequences. Links to resources that describe academic dishonesty (including plagiarism, cheating, inappropriate collaboration and examination impersonation) can be found at http://umanitoba.ca/student/resource/student_advocacy/cheating_plagiarism_fraud.html