Department of Mathematics & Statistics
Concordia University

STAT 460 (MAST 677/MAST 881U)

Time Series and Forecasting

Winter 2015

Instructor: Dr. Wei Sun, Office: LB 921-17 (SGW), Phone: 848-2424, Ext. 5218
Email: wei.sun@concordia.ca

Office Hours: TBA

Text: *Introduction to Time Series and Forecasting*, 2nd Edition, by Peter J. Brockwell and Richard A. Davis, Springer, 2002.

References: *The Analysis of Time Series: An Introduction*, 6th Edition, by Chris Chatfield, Chapman & Hall/CRC, 2004.

Time Series Analysis and Its Applications, 3rd Edition, by Robert H. Shumway and David S. Stoffer, Springer, 2010.

Assignments: There will be four assignments. Each student should submit his/her assignment before the beginning of class, on the announced due date.

Grading: Assignments (15%), Midterm exam (25%) and Final exam (60%).

Topics: This course provides an introduction to the theory and practice of time series analysis. Both time and frequency domain methods will be discussed. Topics covered include:

- Introduction to Time Series
- Stationary Processes
- ARMA Models
- Spectral Analysis
- Modeling and Forecasting with ARMA Processes