STAT 8123, Fall 2017
Time Series Analysis and Forecasting
(5:30pm-8:00pm, Tuesday, Alter Hall 404)

Professor Wei:

Office: Speakman 330
Office Hours: 3:30pm - 5:30pm, Tuesday, or by appointment
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Course Description:

A time series analysis and forecasting course. It covers important univariate and multivariate
time series methods including ARIMA models, intervention analysis and outlier detection,
time series regression, volatility and GARCH models, vector time series models, and
cointegration.

Course Prerequisites:

Any one of the following:
1. Stat 8002
2. Stat 8101 and Econ 8009
3. Advanced undergraduate statistics and probability equivalent to Math 3031-3032

Topics:

Fundamental concepts
Stationary time series models
Nonstationary time series models
Time series modeling and forecasting
Seasonal time series models
Testing the random walk and unit roots
Intervention analysis and outlier detection
Time series regression
Volatility and GARCH models
Vector time series models and cointegration

Text:

Wei, William W.S.
*Time Series Analysis, Univariate and Multivariate Methods, 2nd Edition*
Pearson Addison Wesley, 2006
References:


Important Dates:

- Classes Begin: Tuesday, August 29
- Last day to drop a course: Monday, September 11
- Last day to withdraw: Tuesday, October 24
- Fall break and Thanksgiving Holiday: Monday, November 20 to Sunday, November 26
- Last day of classes: Monday, December 11
- Study Days: Tuesday, December 12 and Wednesday, December 13
- Final Exam: Tuesday, December 19

Grading:

- Assignments and projects, 50%; Exams, 50%