Course Syllabus

Instructor:
Barry Falk
166E Heady Hall
294-5875
bfalk@iastate.edu
Office Hours: MWF 10:00-11:00 and by appointment

Textbooks:
There is not a required textbook for the class. However, readings will be assigned from the following textbooks, which have been placed on reserve at Parks Library. Additional readings from other sources, especially journal articles, will be assigned, too.

Enders, W., *Applied Econometric Time Series*, Wiley, 2004 (Second Edition) [If you are inclined to purchase a textbook for this class, this is probably the textbook to purchase.]


Class Homepage:  [http://www.econ.iastate.edu/classes/econ674/falk](http://www.econ.iastate.edu/classes/econ674/falk)

Course Description:
This course is designed to introduce students with prior exposure to graduate-level econometrics to the specialized econometric methods that are routinely used in empirical macroeconomic research. Since these techniques are primarily used to analyze time series data, this course can also be viewed as an applied time series course, with applications drawn from macroeconomics. The presentation of the material will blend technique, theory, and application.

Requirements and Grade Determination:
The course grade will be determined by problem sets that will be assigned throughout the semester (75%) and a paper due at the end of the semester (25%). Students may work in groups to solve the problem sets, though each student should write up his/her answers individually. The paper must be an individual effort.

Econometric Software:
Students will be required to use MATLAB for problems sets and the paper.

Students with Disabilities:
If you have a disability and require accommodations, please contact the instructor early in the semester so that your learning needs may be appropriately met. You will need to provide documentation of your disability to the Disability Resources (DR) office, main floor of the Students Services Building, Room 1076, 515-294-6624.
Course Topic Outline:
1. Review of Some Time Series Basics
2. Applications of AR and VAR Models: Forecasting, Impulse Response Functions
3. Bootstrapping Test Statistics, Confidence Intervals, and Prediction Intervals
4. The GMM Estimator
5. Nonlinear Models (NLS, Nonlinear GMM, Threshold Autoregressions)
6. Testing for Structural Breaks
7. Trends and Unit Roots
8. Spurious Regression and Cointegration
9. Vector Error-Correction Models
10. Structural Vector Autoregression
11. ARCH and Related Models

A more detailed outline, including assigned and recommended readings will be developed as the course proceeds.