

UNIVERSITY OF OREGON
Department of Economics

Professor George Evans, Economics 607, Fall 2005
Room 441 PLC, Phone: 346-4662, email: gevans@uoregon.edu
Office hours: MW 12:30 – 1:30.

Econometrics I: Time Series Analysis
MW 10:00 AM – 11:50 pm

The textbook for the course (denoted “H” below) is:

James D. Hamilton, *Time Series Analysis*, Princeton University Press, 1994.

There will be two closed book exams: a midterm and the final, counting 35% and 50% of the grade, respectively. The midterm is on Wednesday, October 26. The final exam is 10:15 - 12:15 pm Monday, December 5. About five problem sets will be handed out, and homework will receive 15% of the weight.

Course Syllabus and Reading List

1. Difference Equations and Lag Operators. (H, Ch. 1, 2)
2. Stationary ARMA processes. (H, Ch. 3)
3. Forecasting. Wold’s Decomposition. (H, Ch. 4)
4. Maximum Likelihood. (H, Ch. 5)
5. Spectral Analysis. (H, Ch. 6)
6. Covariance Stationary Vector Processes. Vector Autoregressions. (H, Ch. 10, 11).
Application: L. Christiano, M. Eichenbaum and C. Evans, “Nominal Rigidities and the Dynamic Effects of a Shock to Monetary Policy,” (Journal of Political Economy, 2005).
7. Nonstationary Time Series. Univariate Processes with Unit Roots. (H, Ch. 15, 16, 17)
8. Unit Roots in Multivariate Time Series. Cointegration. (H, Ch. 18, 19, 20).
9. Structural Relations and Cointegration.
 - J. Davidson, “Identifying Cointegrating Regressions by the Rank Condition” (Oxford Bulletin of Economics and Statistics, 1994)
 - C. Hsiao, “Structural Properties of the Two-stage Least Squares Estimator under Cointegration (Review of Economic Studies 1997).
 - D. Altig, L. Christiano, M. Eichenbaum and J. Linde, “Firm Specific Capital, Nominal Rigidities and the Business Cycle,” Disc. Paper, 2004.