University of California **Doug Steigerwald**
Department of Economics

Time-Series Econometrics
Economics 245B

Course Prerequisites:

Students should be familiar with the concepts presented in Economics 241A-C.

Course Requirements:

Students will be graded on a course presentation and a sequence of exercises. The course presentation is designed to extend the first-year econometrics paper into a research paper. Given your research problem, select an article from *Econometrica* that is appropriate for the problem. Describe and implement the methodology for your problem. Given the importance of preparing your first research paper, this constitutes 60 percent of your grade. The remaining 40 percent comes from the exercises, of which there are five. You may turn in the exercises at any time prior to March 10.

Course Textbooks:

Required:

J. Hamilton, *Time Series Analysis*, Princeton, 1994.

Recommended:

J. Campbell, A. Lo and C. MacKinlay, *The Econometrics of Financial Markets*, Princeton, 1997.
G. Gourieroux, *ARCH Models and Financial Applications*, Springer-Verlag, 1997.

References:

All texts listed above have been placed on reserve in the library.

Course Schedule

Week 1 (Wednesday, January 7):
Regression Overview
Hamilton: 8

Week 2:
Spurious Regressions
Hamilton: 18.3

Week 3:
Cointegration
Hamilton: 19

Week 4:
Deterministic Time Trends
Hamilton: 16

Week 5:
Autoregressions
Hamilton: 8.2.4, 11

Week 6:
Bayesian Analysis
Hamilton: 12

Week 7:
Nonlinearities in Financial Data
Campbell: 12

Week 8:

Derivative Pricing Models

Campbell: 9

Week 9:

Presentations

Week 10:

Presentations