

Econometrics I
ECO 6424

- I. Introduction
 - A. Overview
 - B. Computer Projects - This course will require the student to undertake a number of applications using both real-world and simulated data. A brief write-up for each application will be required which summarizes the econometric and economic implications of the study.
 - C. Using TSP for Applied Work
- II. Multivariate Linear Regression
 - A. Bivariate and Multivariate Regression Models
 - B. Methodology - Model Specification, Estimation, Verification, Hypothesis Testing, Specification Testing, Forecasting
- III. Ordinary Least Squares
 - A. Theoretical Underpinnings
 - B. Gauss-Markov Theorem
 - C. Assessing Within-Sample Goodness of Fit
 - D. Significance Tests
 - E. Consequences of Violating Underlying Assumptions
 - F. Specification Error Tests
 - G. Restricted Estimation
 - H. General Hypothesis Tests - t, F, and chi-squared
- IV. Generalized Least Squares
 - A. Theoretical Underpinnings for a Generalized Error Covariance Structure
 - B. Heteroskedasticity - Consequences and Detection
 - C. Serial correlation - Consequences and Detection
 - D. Restricted Estimation