

Econ 671
Econometrics I
Fall 2005, 2nd part

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Office Hours: T, Th 1-2, F 2-3
and by appointment

Class Meeting: Lecture: MW 9:30-10:40, F 10:00-10:50
Lab: F 9:00-9:50
Location: 272 Heady Hall

A. Course Objective: To provide students with an in depth treatment of the classical and general multiple regression models, including deriving common estimators and their properties, hypothesis testing, forecasting, and implementations of misspecification. Some practical experience fitting models and interpreting results will be obtained.

B. Grading:

Homework	20%
Test 1	40%
Test 2	<u>40%</u>
Total	100%

C. Textbooks

Required: Greene, W.H. *Econometric Analysis*, 5th Edition, Prentice Hall.

Alternative: Ruud, P. *An Introduction to Classical Econometric Theory*, Oxford University Press.

I. Introduction

1. "The Econometric Approach," in M.O. Intriligator, R.G. Bodkin, and C. Hsiao, *Econometric Models, Techniques, and Applications*, 2nd Ed., Prentice Hall, 1996, pp. 1-12.

II. Linear Multiple Regression Model

A. The Classical Model

1. Estimators and Properties (OLS, MLE, Bayesian)
 - a. Greene, ch. 1-5, and pp. 425-439
 - b. Ruud, ch. 1, 2 (pp. 19-33)

B. Inference, Hypothesis Testing and Confidence Intervals

1. Simple Hypothesis
 - a. Greene, pp. 50-53
2. Composite Hypotheses and Linear Restrictions
 - a. Intriligator, Bodkin, and Hsiao, pp. 86-97
 - b. Greene, pp. 93-104
3. Prediction/Forecasting
 - a. Greene, pp. 111-114

C. Extensions

1. Multicollinearity
 - a. Greene, pp. 56-57
 - b. Intriligator, Bodkin, and Hsiao, pp. 150-156
2. Omitted and Irrelevant Variables
 - a. Greene, pp. 148-151
3. Proxy Variables
 - a. Greene, p. 86-90

III. General Linear Model

A. Estimators and Their Properties

1. Ordinary least squares, generalized least squares, and feasible generalized least squares
 - a. Greene, pp. 191-196, 198-201, 207-211, 215-237

B. Extension to Seemingly Unrelated Regression Model

1. Greene, pp. 339-365