

Boston College  
EC 228: Econometrics  
Fall 1997

Class: Tues, Thurs, noon-1:15 pm. Gasson 307  
Professor Serena Ng  
Office: Carney 238  
Office Hours: Tuesday and Thursday 2:-3pm

This course is designed to provide students with a thorough grounding in the theory and applications of regression analysis. The course builds on your knowledge of statistics, and tools are developed to analyze relationships between variables of economic interest. The goal of the course is to develop expertise in both evaluating the work of others and performing analysis of your own. Students are expected to have completed courses in university level calculus and statistics. The problem sets will require use of the computer.

Required text: Introductory Econometrics with Applications, Third Edition, Ramu Ramanathan, Dryden Press.

Recommended Supplementary text: Econometric Models and Economic Forecasts, Third Edition, Robert Pindyck and Daniel Rubinfeld, Mcgraw Hill.

Evaluation:	5 Problem Sets:	30%
	Mid-Term Exam (Nov 4):	30%
	Final Exam (Dec 18):	40%

\* Problem sets are due (in class) two weeks after they are assigned. A penalty of one point per day will be applied to missed deadlines.

Topic	Reference
Week 1-1: Introduction	Ch. 1
Week 1-2: Review of Probability and Statistics	Ch. 2
Week 2-1: Review of Probability and Statistics	Ch. 2
Week 2-2: The Simple Linear Regression Model:	Ch. 3.1,3.A.4
Week 3-1: Estimation by Least Squares and ML.	Ch. 3.2
Week 3-2: Properties of the Estimators:	Ch. 3.3
Week 4-1: Hypothesis testing and $R^2$	Ch. 3.4-6
Week 4-2: Multiple Regression Models:	Ch. 4.1-4.3
Week 5-1: Model Selection and Testing	Ch. 4.4-4.5
Week 5-2: Wald Test, F test. etc.	Ch. 4.5
Week 6-1: Omitted and Irrelevant Variables	Ch. 4.6
Week 6-2: Function forms	Ch. 5.1-5.5
Week 7-1: Box-Cox transform and Logit models	Ch. 5.12
Week 7-2: LM, LR and RESET tests	Ch. 5.14,5.15
Week 8: Spring Break	
Week 9-1: Mid-Term	
Week 9-2: Multicollinearity	Ch. 6
Week 10-1: Heteroscedasticity	Ch. 8
Week 10-2: Serial Correlation	Ch. 9
Week 11-1: Distributed Lag Models	Ch. 10.1,10.2
Week 11-2: Dynamic Models	Ch. 10.3,10.4
Week 12-1: Unit Root Tests	Ch. 10.7
Week 12-2: Cointegration and ECM models	Ch. 10.8-10.11
Week 13-1: Time Series	Ch. 11.7
Week 13-1: Qualitative Dependent Variables	Ch. 12.1-12.3
Week 13-2: Limited Dependent Variables	Ch. 12.4
Week 14-1: Simultaneous Equation Models:	Ch. 13.1-13.2
Week 14-2: Identification	Ch. 13.3
Week 15-1: IV and 2SLS	Ch. 13.4