Boston College EC 228: Econometrics Spring 1997

Class: Tues, Thurs, 1:30-2:45pm. Gasson 307 Professor Serena Ng Office: Carney 238 Office Hours: Tuesday and Thursday 3:-4pm

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: <u>Introductory Econometrics with Applications</u>, Third Edition, Ramu Ramanathan, Dryden Press.

Evaluation:	6 Problem Sets:	30%
	Mid-Term Exam:	30%
	Final Exam:	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.

*Final Exam will be on May 7, 1997 at 12:30pm.

Topic

Week 1-1: Introduction Ch. 1 Week 1-2: Review of Probability and StatisticsCh. 2 Week 2-1: Review of Probability and StatisticsCh. 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 Ch. 13.4 Week 15-1: IV and 2SLS