

Economics 35
Econometrics
Swarthmore College

Professor Jefferson
Office Hours: Mon. 2:30pm-4:00pm & by appt.

Fall 2006
Kohlberg 212, x690-6856

COURSE DESCRIPTION:

Quantitative methods used in estimating economic models and testing economic theories are studied. Students will (1) gain an understanding of certain statistical techniques that have proven useful in the analysis of economic data; (2) implement proven estimation procedures using real world data sets; and (3) develop their ability to evaluate critically empirical research done by economists.

TEXTS:

Wooldridge, Jeffrey M. (2006): Introductory Econometrics: A Modern Approach, 3rd edition. South-Western College Publishing, Cincinnati, Ohio. (Required, denoted W).

Acocck, Alan C. (2006): A Gentle Introduction to Stata, Stata Press, College Station, Texas. (Optional)

Coursework	Date	Grading
In-Class Exams (any three)	9/29, 10/27, 11/27, and 12/6	60% (20% each)
Final Exam	Set by Registrar	30%
labs/ problem sets	Periodically	10%

LABS and PROBLEM SETS:

Periodically, Friday class time will be used for computer-based laboratory sessions. (See the class calendar attached.) These “class labs” will be held in Trotter 201. Class labs are designed to demonstrate the practical application of econometric concepts. Additionally, the TA will hold a “walk-in lab” for questions once a week at a time and place to be determined.

Problem sets contain two types of exercises: analytical and computational replication of empirical results. You may work together on the labs and problem sets.

Labs and problem sets will be checked by the TA: Qing Ling (qling1). They will not be “graded.” They will be collected, however, for purposes of review. Thus, each person must turn in her/his own set of solutions to the labs and problem sets.

DATA SETS and STATA:

To find the data sets for the computer-based exercises on the campus network, follow the path: \\Data-software\classes\Social Sciences\Economics\Econ 35\Data for Econ 35. Alternatively, follow the instructions in your textbook for accessing the data over the Internet. Instructions for accessing Stata and a Stata tutorial are in the Readings for Econ 35 section of the Econ 35 folder.

TOPICS AND READINGS

Lecture 1: Motivation and Data Structures

Reading: W chapter 1

Lecture 2: Elementary Linear Regression

Reading: W chapters 2, 3

Lecture 3: Inference in Regression

Reading: W chapter 4

Lecture 4: Multiple Regression

Reading: W chapter 6

Lecture 5: Qualitative Information

Reading: W chapter 7

Lecture 6: Specification and Data
Problems

Reading: W chapters 9, 15.1, 15.2, 15.4

Lecture 7: Non-Spherical Disturbances

Reading: W chapters 8, 12

Lecture 8: Panel Data Models

Reading: W chapters 13, 14

Lecture 9: Simultaneous Equations

Reading: W chapters 15.3, 15.5-15.8, 16

Lecture 10: Limited Dependent Variable
Models

Reading: W chapter 17

Lecture 11: Analysis of Time Series Data

Reading: W chapter 18

PROBLEM SETS

Problem Set 1: W chapter 2- 2.6, 2.7, 2.8, C2.1, C2.4

Problem Set 2: W chapter 3- 3.4, 3.8, C3.1, C3.5

Problem set 3: W chapter 4- 4.10, C4.2, C4.3

Problem set 4: W chapter 6- 6.3, C6.5, chapter 7- 7.2, 7.5, C7.4

Problem set 5: W chapter 9- 9.3, 9.5, C9.1, C9.4, chapter 15- 15.1, 15.8, C15.1

Problem set 6: W chapter 8- 8.4, C8.2, C8.4, chapter 12- 12.3, C12.4

Problem set 7: W chapter 13- 13.6, C13.2, C13.5, chapter 14- 14.1, 14.4, C14.2

Problem set 8: W chapter 15- C15.5, chapter 16- 16.5, 16.8, C16.2

Problem set 9: W chapter 17- 17.5, 17.6, C17.1

Problem set 10: W chapter 18- 18.2, 18.6, C18.2

CLASS CALENDAR: FALL 2006

September

4: Lecture 1: Motivation and Data Structures
6: Lecture 2: Elementary Linear Regression
8: Lab: Getting Started with Stata

11:
13: Lecture 3: Inference in Regression
15: Problem set 1 due

18:
20:
22: Lab: Understanding Sampling Distributions

25: Lecture 4: Multiple Regression
27: Problem sets 2 and 3 due
29: Exam

October

2: Lecture 5: Qualitative Information
4:
6: Lab: Interpretation of Coefficients and Joint Hypothesis Tests

9: Lecture 6: Specification and Data
11: Problem set 4 due
13: No Class

23:
25:
27: Exam

30: Lecture 7: Non-Spherical Disturbances

November

1:
3: Lab: Instrumental Variables and Robust Standard Errors

6: Problem sets 5 and 6 due
8: Lecture 8: Panel Data Models
10:

13: Lecture 9: Simultaneous Equations
15:
17: Lab: Fixed Effects and Two-Stage Least Squares

20: Lecture 10: Limited Dependent Variable
22: Problem sets 7 and 8 due

27: Exam
29: Lecture 11: Analysis of Time Series Data

December

1:
4:
6: Exam
8: Lab: Sample Selection Tests and Dickey-Fuller Tests

11: Problem sets 9 and 10 due