Economics 1630: Econometrics I

Professor Frank Kleibergen **Spring 2010**
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Office Hours: Tuesday 1.00-2.30 pm
Classes: Monday 8.30-9.50 am & Wednesday 8.30-9.50 am, Kassar House Fox
Without permission, it is not allowed to enter class more than ten minutes late or to leave beforehand.

Teaching Assistant Zhaoguo Zhan
Section I: Wednesday 12:00 - 12:50 pm Smith-Buonanno Hall 101
Section II: Wednesday 7:00 - 7:50 pm Smith-Buonanno Hall G01
Office Hours: Friday 3:00 - 4:30 pm Robinson Hall Basement

Course Description:
This course is the introduction to econometrics course offered by the Economics Department at Brown. Prerequisites: EC 1110 or 1130, MA 520, and either APMA 1650, MA 1620 or ECON 1620. Computer (Stata) programming experience is helpful but not required.

Required Textbook:

(SW) Stock, J., and M. Watson. *Introduction to Econometrics*, 2-nd Edition, Addison-Wesley, 2006.

The course will follow SW. The lectures will go into more depth about some aspects where we take advantage of the skills EC163 students have acquired prior to taking the class. There is some use of vector/matrix algebra when we discuss the multivariate linear regression model. I will provide some introduction to it but please refresh your knowledge about it when you need to.

The sections will review the material from the lectures and homeworks.

Grading:
Grades will be based on three exams (3×25%) and four homeworks (25%). The exams will be in class on **Wednesday, March 3-rd; Wednesday, April 7–th** and **Wednesday, May 5-th**. There is no final exam. Only in the case of a family emergency or medical absence (confirmed by the dean) will absence from the exams be allowed. Comments on graded exams/homeworks are to be made within one week of receiving the graded material.

Homework:
I encourage you to study in groups. Your homework assignments MUST, however, entirely be your own work. I will not accept identical homeworks turned in by different students. Homework assignments and transparancies will be put on my homepage under the courses section.
Homeworks are due at the beginning of class on the due date. Please turn homeworks in on time as late homeworks will not be accepted. The homeworks are tentatively scheduled for: HW1 2/17, HW2 3/10, HW3 3/24, HW4 4/21.

No classes: Monday February 21-st, Monday March 29-th and Wednesday March 31-st (spring break).

Course Outline:

The chapters and sections listed below. The material we will cover may be adjusted somewhat towards the end of the semester.

1. Introduction

   Chapter 1

2. Fundamentals: (probability, random variable, mean, variance, statistical model, estimation, inference)

   Chapter 2 & 3

3. Linear Regression with One Regressor

   Chapter 4, 5 & 17.1-17.4

4. Linear Regression Model with Multiple Regressors

   Chapter 6, 7 & 18.1-18.5

5. Nonlinear Regression and Specification Analysis

   Chapter 8 & 9

6. Panel Data

   Chapter 10

7. Logit and Probit Models

   Chapter 11

8. Instrumental Variables (IV)

   Chapter 12

9. Experiments and Quasi-Experiments

   Chapter 13

10. Time Series Models

    Chapter 14