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University of California-San Diego Dept. of Economics

Economics 120A Econometrics I

Information

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Introduction

This course is an introduction to statistical analysis with applications to topics traditionally studied in economics. The topics covered here are imperative for a appropriate understanding of regression analysis, presented in Econ. 120B and 120C. We will cover the major topics of data analysis, including probability theory, random variables, sampling and estimation. Moreover, we will use the spread-sheet software EXCEL for basic data analysis.

Course Information

Homework assignments, answer keys and announcements will be posted on my web-page.

Require Test Book

Statistics for Business and Economics by Paul Newbold, 1995, 4th edition.

Required Additional Readings

This course will use the spreadsheet software *Excel* for numerous computer assignments: a document that details how to use Excel for the various statistical assignments is posted on the course web-site.

Course Structure

There will be 2 tests (one midterms = 35% each and one final = 45%), occasional mathematical assignments and data analysis exercises. The data exercises will be in the form of computer lab and take-home quizzes. The course grade is based on your test performance and the data exercises. However, the mathematical assignments are designed to help you learn the theoretical and empirical details presented in lecture: failure to do the homework assignments will lead to a failing grade in the course. Grades will be scaled relative to the performance of your class-mates.

Teaching Assistants and Lab Sessions

TBA: see the class web-site for updated information.

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Tentative Lecture Schedule

| Week | Topic | Chapter |
|------|--------------------------------|--------------------------------|
| 1 | Summary Statistics | 2 (all sections except 2.3.iv) |
| 2 | | |
| 3 | Probability Theory | 3 (all sections) |
| 4 | | |
| 5 | Discreet Random Variables | 4.1, 4.2, 4.3, 4.5, 4.6, 4.7 |
| 6 | Joint Random Variables | 4.4 and 12.1 (correlation) |
| 6 | Continuous Random Variables | 5.1, 5.2, 5.3, 5.4, 5.5 |
| 7 | Sampling | 6.1, 6.2, 6.3, and 5.6 |
| 8 | Point Estimation | 7 (all sections) |
| 9 | Interval Estimation | 8.1, 8.2, 8.3, 8.4 |
| 10 | Final Topics (time permitting) | 5.8, 6.4, 8.5, 8.6, 8.7 |

Test Schedule (subject to change)

Midterm: to be announced final: to be announced