Problem set 1 is out and it is due on April 11. Please check it out HERE.

ANNOUNCEMENTS:

3/25/04 If you took my 120a course for the winter quarter, you can find the solution to the final exam here. To get your final back, drop by my office during my office hour as listed below.

4/2/04 TAs:

Martinez, Jose Email: j14marti@econ.ucsd.edu Office: Sequoyah 140 Section: A02 and A08

Chalak, Karim Email: kchalak@ucsd.edu Office: Econ 122 Section: A05 and A07

King, Kevin Email: keking@econ.ucsd.edu Office: Econ 116 Section: A04 and A06

Fujita, Shigeru Email: sfujita@econ.ucsd.edu Office: Sequoyah 205 Section: A01 and A10

Section A03 and A09 do not have TAs. Students in these two sections may go to any one of the other sections they like.

ECONOMETRICS 120A - SPRING 2004

Instructor: Zhigang Li *Email:* zli@econ.ucsd.edu

Office: Sequoyah Hall 206 *Office Hours:* MWF 10:30 a.m - 12:00 p.m. (i.e. *before* each class)

Classroom: Center Hall 101 *Class Time:* MWF 12:00 p.m. - 12:50 p.m.

Course Webpage : www.econ.ucsd.edu/~zli/120a

Course Description:

As the first of the *Econometrics* sequence, this course is designed to provide you building blocks necessary to construct rigorous econometric tools. These building blocks include basic statistics, probability rules, and the methodology of inferring the truth from the observed. Besides laying a groundwork for sophisticated econometrics, this course also provides you some tools that are ready to be used in analyzing *quantitatively* interesting economic problems. For example, this course teaches you how to judge statistically whether two variables are the same on average; this tool has wide applications in economic and business practices.

Texts

Wonnacott, T.H. and R.J. Wonnacott, (1990) Introductory Statistics for Business and Economics, Fourth Edition, John Wiley and Sons:New York.

Software

All of the statistics in this course can be done using the Microsoft Excel spreadsheet program, which is available in the computer laboratory in Econ 100. You may use other econometric or statistical software.

Course Outline

The course is organized around the following topics. Class notes will be posted in order.

Introduction (PDF)

Part One --- the Basics

Topic 1 Describing Data --- Single Variable PDF Notes

Topic 2 Describing Relationship in Data --- Two Variables PDF Notes (posted at 9:51pm on 4/3/04)

Topic 3 Basics of Probability PDF Notes (posted at 1:21pm on 4/5/04)

Part Two --- Inference about the Mean

An Application: Inferring the Truth --- the Fairness of a Coin

Topic 4 Distributions of Sample Mean

Topic 5 Confidence Interval

Topic 6 Basics of Hypothesis Testing

Part Three --- Applications, Generalization, and the More Advanced

Topic 7 Point Estimation --- Bias, Consistency, and Efficiency

Topic 8 Common Probability Distributions

- Bernoulli Distribution
- Binomial Distribution
- Poisson Distribution
- Exponential Distribution

Topic 9 Two Random Variables

Problem Sets and Practice Exams

Tips for Using the Excel

My tips for drawing a histogram: First turn your data into a five-bin frequency table with a MIDPOINT for each bin in the first column and the corresponding frequencies in the second column. On an Excel worksheet input the frequency table. Click the "Chart Wizard" button, choose the "Column" chart type, click "next", highlight the "frequency" column of the data, now you should see a five-bin bar chart on the mini-window. Click the "series" button close to the upper right-hand corner, click the small open window next to "Category (X) axis labels", highlight the "bin"

column of the data. Click "next" and fill in any information you want. Finally, click "finish".

Problem Set 1

Computer Lab Usage

Lab Facility: Economics Building 100

Combination: 0578715

Note 1: Some labs have open hours when a combination is not required and some labs require a combination 24 hours/day depending on the use of the lab. Room hours are posted outside the door. The combination is for the students in this class *only*. The labs will be closed to the students at the end of exam week and all class access codes will be removed.

Computer Accounts Slips contains information you need to access computer facilities.

Note 1: Computer accounts slips are distributed by TAs. Please go to your computer lab sessions and ask the TAs for your computer accounts slips.

Note 2: Pre-registered students: your name is already on the computer account slip. The accounts should be active by 4:00 p.m. on the first day of classes.

Note 3: Students not on the roster: a BLANK computer account slip will be distributed to you. You need to fill in your name, student id. number, and password; then return the slip to the Account Office. There are instructions on the forms.

Evaluations

Four Homework Assignment 20%

One Midterm Exam (One midterm is offered on April 26 and another is on May 14; you can pick one to take, or you can take both and get the better grade as you midterm grade) 35%

One Final Exam (date and location to be announced) 45%

For example, suppose that you earned 65% for the four homework assignments, 65% for the mid-term, and 80% for the final. Your numerical grade will be 65%*20%+65%*35%+80%*45%=71.75%.

Your letter grade will then be determined according to the curve of the grades of your class. Details will be announced shortly.

Assignments should be handed in before class on the dates specified. Do not interrupt class to hand in assignments. Late assignments will not be accepted.

Exam policies: You may use a calculator, a simple one is enough. All grading problems (exams and problem sets) must be rectified within a week my returning the work. There will be no regrading of exams written in pencil. Makeup exams will only be given if absence is due to medical reasons (Doctors certificate required). In general, makeup exams will be at least as difficult as the regular exam, most likely harder.