This course will introduce you to probability and statistics, and will develop a more advanced statistical analysis, regression. Regression analysis is a major tool in economics, and makes extensive use of probability and statistics. As such, this course builds upon itself as the semester proceeds.

I have found that statistics is a difficult course for students. It is a subject that uses many concepts that you have not seen before. Furthermore, the applications of those concepts are useful in situations often outside your experience. Nevertheless, application of the material to which you will be introduced is the best way to learn it. Course requirements, therefore, are application oriented.

COURSE REQUIREMENTS

There are 3 quizzes, homework, 2 midterm exams, and a final exam. I will count your 2 best quizzes and your best midterm in calculating your grade (your worst quiz and midterm will not count). Weights for each assignment are:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Midterm</td>
<td>20%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>15%</td>
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<tr>
<td>Homework</td>
<td>15%</td>
</tr>
<tr>
<td>Final</td>
<td>40%</td>
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Exams and quizzes will be given on the following dates:

- Quiz 1: Thursday or Friday, Sept. 17 or 18 (Recitation)
- Midterm 1: Monday, Sept. 28, 7:00-8:30 p.m.
- Quiz 2: Thursday or Friday, Oct 22 or 23 (Recitation)
- Midterm 2: Monday, Nov. 2, 7:00-8:30 p.m.
- Quiz 3: Thursday or Friday, Dec. 3 or 4 (Recitation)

Exams are in the evening for 1 1/2 hours.

Problems for quizzes will be taken from the odd numbered problems in your textbook, and will be given in Recitation.

Homework will be assigned from problems in your textbook and from a laboratory manual you need to purchase.

You will be doing a number of homework assignments using a statistical package called RATS (Regression Analysis of Time Series). We will be working on personal computers. The laboratory manual is a guide to the computer assignments.

You are responsible for all material covered in reading assignments. Lectures will cover the more difficult material in the textbook.

No Make-Up Exams or Homework will be allowed. If you miss a midterm and
have a legitimate excuse you will be required to take an examination covering that material during the final exam period.

The drop date this semester is October 6, 1987. If you have done all course work up to that date, you may withdraw from the course with a "W". Otherwise I will not authorize a withdrawal under any circumstances. I will consider incomplete grades only in cases of extreme hardship AND where you have completed all work in the course with an average grade of "C" or better. If you grade average is below a "C", I will not give an incomplete grade under any circumstances.

COURSE MATERIALS
1. There is one required text:


2. In addition, you need to buy a Statistics Laboratory Manual. It will be available at Class Quotes Copy Center, 1107 13th Street, in the second week of classes.

3. You also need to buy three 5 1/2", double density, double sided floppy disk for use in the computer assignments.

COURSE OUTLINE
I. Introduction
II. Summarizing and presenting data
III. Probability
IV. Random variables and probability distributions
V. Sampling and sampling distributions
VI. Point estimation
VII. Interval estimation and hypothesis testing
VIII. Linear correlation and regression
IX. Multiple regression
X. Binomial Distribution and sample proportions
XI. Differences between means and proportions
XII. Sample size and the Poisson distribution

READING ASSIGNMENTS
Chapter 1
Chapt. 2
Sections 3.1-3.7
Sects. 4.1-4.4, 5.1-5.6
Sects. 6.1-6.2, 6.4
Sects. 7.1-7.2
Chapt. 12
Chapt. 13, 14
Sects. 4.5, 6.3, 8.5, 9.5
Sects. 8.7-8.8, 9.6-9.7
Sects. 8.9, 4.7