Economics 581 is a course in applied regression analysis for Master's level students. Prerequisites for 581 are a course in economic statistics and some basic differential calculus and matrix algebra. The topics reviewed in the appendices of chapter 1 of our text are essential, and if any of these seem unfamiliar to you, I urge you to study these topics independently from an appropriate statistics text. You will be actively involved with the computer in this course, but no previous exposure to computing or programming is required. You will learn the basics of time sharing on CU's computer and the use of an extensive econometrics program (TSP) through regular assignments in the Econometrics laboratory.

Your grade will be based on two hourly exams and a final (each counting 20% of your total marks), the lab assignments (20%) and an individual applied regression project (20%). Six lab assignments out of nine available must be completed for full credit, and late work will not be accepted. Please do not ask for an exception to this. Your applied regression project should mimic in form empirical papers such as you find in the Review of Economics and Statistics. Such articles usually contain [1] an introduction to the problem, [2] a review of relevant literature, [3] a presentation of the theoretical basis of your model, [4] a discussion of variables definitions, data, functional form, estimation technique and other messy empirical issues, [5] a discussion of the results, econometric problems and implications of the results for theory or policy, and [6] a conclusion. These projects are due on May 12. Late projects will be penalized two percentage points per day.

Course Materials
Laboratory Materials:
Manual to Time Series Processor (TSP) (available at Kinko's)

Topics and Assignments
I. Introduction to regression and TSP.
   Lab Manual pp. 1-14
   Experiment 1 (Industrial Organization) due February 5
   Text, pp. 1-6

II. Statistical review
   Text, pp. 7-18

III. Classical linear regression
   Text, Chapters 2-4
   Experiment 2 due February 19
   Experiment 3 due February 26
Topics and Assignments: Continued

First HOURLY EXAM

IV. Extensions of classical model (dummy variables, distributed lags)
   Text, Chapter 5
   Experiment 4 due March 14
   Experiment 5 due March 21

V. Single equation problems (multicollinearity, specification error, autocorrelation, heteroscedasticity)
   Text, Chapter 6
   Experiment 7 due April 4
   Experiment 8 due April 11
   Experiment 6 due April 18

Second HOURLY EXAM

VI. Simultaneous equations identification and estimation
   Text, Chapters 7 and 8
   Experiment 9 due May 9

Projects due: May 12

FINAL EXAM May 20, 1986 7:30 a.m.