Economics 6818, Econometrics, Spring 1998
Lectures: Monday, Wednesday Room 5, 11:30-12:45.
Ron Smith, Room 203, Email: RonS@spot.colorado.edu; Tel: 482-8295
Office Hours, M W F 1:45-2:45.
You should also look at Peter Kennedy, A Guide to Econometrics, 3rd edition; K below. This is not a text book, but students usually find it very useful in explaining what econometrics is all about.

Objectives: This course will provide an introduction to basic econometric techniques and experience in using these techniques to answer real world questions. It will require basic mathematics (algebra, calculus and matrix algebra), elementary descriptive and mathematical statistics and intermediate economics. It will provide some revision of this material as it is used.

Assessment.
One mid-term, one computer exercise on data provided (using EViews or any other program you prefer), one final exam and one 2,000 word empirical term paper on a topic of your own choice (each worth a quarter of the final grade).

Exercises and a computer assignment will be distributed.

Provisional Outline.
We may not be able to cover all this.


Revision of elementary statistics. G Appendix A1-A5. This will cover probability distributions, Expected Values and Variance, Joint, Marginal and Conditional Distributions; Conditional Expectations.
Hypothesis Testing, G A8.
Descriptive statistics, Correlation and covariance.
Least squares curve fitting; predicted values and residuals. G3.1
Regression assumptions and properties of least squares estimates G3.2-3.10.
Normality and Maximum Likelihood G 4.
Testing hypotheses about regression coefficients and Interpreting regression output. G5, K4
Regression with two independent variables. G7
The linear regression model in matrix notation.G A2 & 9
Examples of the use of regression: non-linearity, dummy variables, specification search. G6, G8 & G15
Consequences of the failure of the regression assumptions. G 11 & 12, K6-9.
Testing for the failure of the regression assumptions.
Alternative methodologies, G13 & 14 and K 5
Autoregressive distributed lag models (ARDL). G17.
Autoregressive (AR) and Moving Average (MA) models G22.
Forecasting.
Measurement errors.