Syllabus: This course is intended for students who have completed the equivalent of a good college level statistics, and a sophomore level econometrics course such as Econ 220-221. NOTE: I will assume total knowledge of material covered at that level.

The principal purpose of the course is to introduce the skills necessary for inference and statistical decision making in the social sciences, with particular reference to Economics and Econometrics. Regression techniques and Sampling and data situations are described with special focus on "observational" data in social sciences, but also of many real life "experiments" in medical, political, psychological, engineering and other fields.

Bivariate regressions and their different functional forms are introduced. The need to "control" for other covariates leads to a discussion of "multiple regression" with many "explanatory variables". An interpretative device allows us to consider multiple regression without using matrix algebra. But for those trained in linear algebra, a short introduction, or digressions are offered.

Estimation techniques and methods for testing hypotheses will be introduced. The emphasis will be on learning proper use and interpretation of inference techniques in real life situations, and to avoid mis-use of statistical techniques in empirical research and consulting work.

Many examples from current topics in economics and consulting areas will be presented and worked through. You are strongly encouraged to use R (search-project and download for free) or STATA. This class is closely associated with a LAB SECTION that provides hands-on skills and instruction on related material. Numerous problem sets are given in the main textbook and there is a solution manual. Success in acquiring the skills in this course depends on a good and TIMELY command of each topic/module as we progress to more realistic models and tools.

Topics such as dummy variables, robust standard errors (HAC), endogeneity and Instrumental Variables, and discrete variables will be introduced. Also "big Data" methods such as "regularization" methods will be referenced and shown to be well within reach of students who can master the material.

The main textbook for this course is Jeffrey Wooldridge’s Introductory Econometrics, 6th Edition. Exercises and data problems and examples are from this book. If you have this book, you will have access to the data sets, and student solutions.

Grading and Exams:
There will be one Midterm Exam the third Monday of October with a weight of 30% and

One Final Exam at the assigned final exam time for this section (See Registrar's calendar) with (50%) of total term grade. The remaining 20% of the term grade will be from the LAB section.

NOTE: Timely delivery of assigned homework before solutions before deadline is critical. Solutions will be posted.

NOTE CAREFULLY: There is zero tolerance for cell phones, PDAs, internet connected laptops, etc, and similar activity.

LATE ARRIVAL to lectures. If you are late, you must skip the class and obtain the course material from a fellow student. If you have more than three unexcused absences, it will be assumed that you have dropped from the course.

The honor code is enforced and hereby attached and incorporated to this course description. Please read it carefully.

THERE IS A CANVAS SITE FOR THIS COURSE WHERE notices, DOCUMENTS, modules AND SOLUTIONS ARE POSTED.