Economics 7818   August, 2016
Office: Room 108   waldman@colorado.edu
                                                         Tues/Thurs 4:00 - 5:30, and by appointment

Course Information

General: Economics 7818 is a course in mathematical statistics for economics Ph.D. students. It is followed by Economics 7828, a course in regression analysis. Together, Econ 7818 and 7828 are the core courses required for taking the preliminary exam in quantitative methods.

Prerequisites: An undergraduate course in statistics; calculus, to the level of multiple integration with transcendental functions (*e.g.* log,   , etc.); the ability to manipulate and simplify algebraic expressions, and (most importantly) the ability to think abstractly.

Requirements: There will be two lectures weekly, meetddeqwheu w ` tind (m   Monday, December 12th, 1:30–4:00 p.m. and weekly problem sets (usually, end-of-chapter Exercises from the text, and other problems) throughout the semester.

   Grading: Grades will be determined approximately as follows:
   Midterms: 40%
   Final exam: 30%
   Problem Sets: 30%

   Texts: Introduction to Statistics and Econometrics

   _____, Takeshi Amemiya, Harvard, 1994.

Tentative Course Outline: We will cover, roughly in order, some or all parts of the first nine chapters of the text. After a brief introduction to what empirical economists do, we will discuss probability; univariate and multivariate discrete and continuous random variables (especially the normal distribution); mathematical expectation; sampling distributions; large sample (asymptotic) theory; methods of estimation; and hypothesis testing.

Practice Problems: The end-of-chapter exercises are valuable learning experiences, but it is not expected or required that you do all of them. I will assign some of these problems, as well as other exercises, for problem sets. Answers to selected problems will be posted after assignments are due.

Problem sets will be posted on the course web site. Written answers to problems are to

Additional resources: