

ECON 520

Probability and Statistics for Economists

Emory University/Economics Department

Instructor: Esfandiar Maasoumi

M/W 4:00 – 6:00

Candler Library Room 124

Office Hours (Fall 08): 1:30-3:30 pm MW and by appointment

Textbooks: Several may be useful. The main text for the most part is

Hogg, McKean and Craig: Introduction to Mathematical Statistics, Sixth Edition, Prentice Hall.

For the regression and linear model introduction, any graduate level econometrics text will do, for instance:

Johnston and Dinardo: Econometric Methods, McGraw Hill.

Grading: Exercises 20%
 Midterm 30%
 Final 50%

Course Description: This is a fairly rigorous introduction to statistical methods and concepts that are needed in much of modern econometrics and economics. For the first part of the course, we will keep fairly close to the topics and level of coverage given in the first 9 chapters of Hogg et al book. This will include derivation of distributions, limits and asymptotic theory, inference including estimation by maximum likelihood and method of moments, testing and optimal tests, and some nonparametrics. Multivariate distributions and conditional distributions are emphasized, as are fundamental theorems on quadratic forms in normal and related variables that are commonly used in econometrics.

The second, shorter part of the course is on regression (conditional moments, generally) that is the workhorse of modern empirical economics and social sciences. The emphasis is on seeing this part as a natural and predictable extension of the material in the first part of the course.

Many exercises will be assigned which are required and graded on a weekly basis. A solution outline may be provided after each deadline. No grades can be given to work submitted after solution outline is put out.