



Mathematics 323 Introduction to Mathematical Statistics

Bivariate distributions. Sampling distributions. Chi-squared, F and t distributions. Estimation. Hypothesis tests (proportions, means, variance, chi-square). Method of moments. Maximum likelihood estimators. Neyman-Pearson lemma. Likelihood ratio tests. Elementary regression and correlation.

Course Hours: H(3-1T)

Prerequisite(s): Mathematics 321.

Notes: Prior or concurrent completion of Mathematics 353 or 381 is strongly recommended.

Suggested Text: This outline is indexed to "Mathematical Statistics with Applications", by D.D. Wackerly, W.M. Mendenhall, and R. L. Scheaffer, Sixth Edition. Duxbury Press, in order to provide an indication of the depth of coverage of the various topics.

Syllabus

Table with 2 columns: Topics and Number of Hours. Rows include Chapter 5 (6 hours), Chapter 6 (6.1-6.7) (6 hours), Chapter 7 (7.2) (3 hours), Chapter 8 (8.1-8.4) (4 hours), Chapter 9 (9.2, 9.3, 9.6, 9.7) (5 hours), Chapter 10 (6 hours), Chapter 11 (11.1-11.9) (6 hours), and a TOTAL row (36 hours).

\*\*\*\*\*