Statistics 385

Nonparametric Methods (3)
(Effective Fall 2007)

Prerequisite: Math 251, and Stat 325 or Engr 311.

Catalog Description: Alternatives to normal-theory statistical methods; analysis of categorical and ordinal data, methods based on rank transforms, measures of association, goodness of fit tests, order statistics.

Goal: Prepare the students majoring in the mathematical sciences for careers involving Statistics.

Learning Outcomes for Major: This course addresses one or more of the student learning outcomes for the major. Upon completion of his/her degree from the University of Tennessee at Martin with a major in mathematics, the graduate will be able to:

i. apply mathematical concepts and principles to perform numerical and symbolic computations.

ii. use technology appropriately to investigate and solve mathematical and statistical problems.

iii. write clear and precise proofs.

iv. communicate effectively in both written and oral form.

v. demonstrate the ability to read and learn mathematics and/or statistics independently.

Teaching Objectives: The student will:

1. Learn tests for the binomial distribution, contingency tables, and methods based on ranks.

2. Study Methods based on ranks.

3. Study Statistics of the Kolmogorov-Smirnov Type.


Outline: Chapter Title (Sections)
1 Probability Theory
2 Statistical Inference
3 Some Tests Based on the Binomial Distribution
4 Contingency Tables
5 Some Methods Based on Ranks
6 Statistics of the Kolmogorov-Smirnov Type

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