

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.

Text(s): Practical Nonparametric Statistics, 3rd Edition, W. J. Conover, 1999. ISBN: 978-0-471-16068-7.

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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