

| Course No. | Course Title | Theory | Practice | Credit | Prerequisite(s) |
|------------|-----------------------|--------|----------|--------|-----------------|
| Stat 453 | Nonparametric Methods | 3 | - | 3 | Stat 302 |

Objectives

To introduce a collection of non-parametric tests which applicable on data from general populations.

Course Description:

- Order statistics and their probability distributions.
- Distribution of the median, limiting distribution.
- Point and interval estimation for median using order statistics.
- Sign, signed rank (Wilcoxon) tests for one sample and paired data.
- Kolmogrov-Smirnov test for one and two samples.
- Mann-Whitney-Wilcoxon test for two samples.
- Spearman's rank correlation, Kendall's tau and tests of association based on them.
- Kreskas - Walls test and Friedman test.

Main text books :

Conover, W. "Practical Nonparametric Statistics", 3rd, John Wiley & Sons, (1992).

Subsidiary books :

Randles R.H. and D.A. Wolfe, "Introduction to the theory of Non-parametric, 1992, John Wiley and Sons.