

MTH 516A

Syllabus:

The goal of this course is to understand the basic concepts of nonparametric inference. We will start with non-parametric function estimation (density and regression), and study related consistency properties. Then, we will introduce basic concepts like symmetry, quantiles and order statistics. In the context of testing, we will study tests of randomness, goodness of fit tests, the one sample location problem and U-statistics, and finally address the two sample case.

Recommended Books:

- 1. All of Nonparametric Statistics by Larry Wasserman*
- 2. Nonparametric Statistical Inference by Jean Dickinson Gibbons and Subhabrata Chakraborti*
- 3. Introduction to the Theory of Nonparametric Statistics by Ronald Herman Randles and Douglas Alan Wolfe*

Useful Website: <https://sites.google.com/site/tjahbus/home/courses/mth516>.

Evaluation plan

There will be two quizzes, one mid-semester examination and one end semester examination.

There will be no make-up for the mid-semester exam, or quizzes.