

# Math 7647 Nonparametric Statistics

Fall 2019

Instructor: Dale Bowman

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Office: Dunn Hall 357

Office Hours: MW 4-5pm or by appointment

Prerequisite:

Math 6635, Math 6636 or equivalent and some experience in R

Required Textbooks:

1. Introduction to Modern Nonparametric Statistics by James Higgins, Duxbury
2. An Introduction to Statistical Learning: with application in R, by Gareth James, Daniela Witten, Trevor Hastie and Robert Tibshirani, **free** downloadable at <http://www-bcf.usc.edu/~gareth/ISL/>

Description:

The course provides an introduction to statistical estimation and inference methods that require relatively mild assumptions about the population distribution. Classical nonparametric hypothesis testing methods, Spearman and Kendall correlation coefficients, permutation tests, bootstrap methods (from the first required textbook) and nonparametric regressions, decision trees (from the second required textbook) will be covered.

Grading policy:

There will be two tests, a midterm and a final exam and several homework assignments during the semester. The final grade in the course will be determined as the average of the midterm, final and homework grade. The letter grade will be calculated from the following:

A = 90-100

B = 80-89

C = 70-79

D = 60-69

F = below 60

No makeup exams will be given and no late homework will be accepted.