

APMA 168 - Nonparametric Statistics-Spring 2010

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**Course web-page:** <http://www.dam.brown.edu/people/kspiliop/S10AM168.html>

**Meets:** TuTh... 2:30-3:50PM at B&H 158

**Text:** *Nonparametric Statistical Methods*, Myles Hollander and Douglas A. Wolfe, 2<sup>nd</sup> Edition

**Recommended Text:** *Practical Nonparametric Statistics*, W. J. Conover, 3<sup>rd</sup> Edition

**Prerequisites:** *APMA 1650 or equivalent*

**Course Description:** Introduction to nonparametric statistics. Non parametric methods require minimal assumptions about the underlying population from which the data are obtained. In particular, non parametric methods work to minimize restrictive assumptions such as normality behind t- and F-tests, and the relationship assumptions behind simple linear regression. At the same time, they are of nearly equal power to the classical alternatives. We will consider theoretical, applied and implementational issues of non parametric statistics. The course will cover most of the material in the book of Hollander and Wolfe.

**Tentative grading policy:** Your grade will be based on : (a) Homework (40%), (b) midterm exam (30%) and final exam (30%). The grading policy may change depending on the progress of the class.

**Exams:** There will be one midterm exam and one final exam. The exam material for each one of the two exams will be announced in class and posted on the webpage of the course. The final exam will concentrate on the material that was taught from the previous test and then. However, I reserve the right to include a couple of questions from the material of the previous exam. Hence, make sure that you have learned from your mistakes.

**Homeworks:** There will be several homeworks, both theoretical and computational. The due date of each homework will be announced in class and it will usually be 7-10 days after. Needless to say, you should work on the homework on your own, unless otherwise instructed by me. The computational problems will be done using the statistical package **R**. A short introduction to **R** will be given in class. However, as with every programming language, you learn it if you use it. So, make sure to practice yourself. Late homeworks will be heavily penalized.

**Make-up policy:** Make up exams will be given only in extreme circumstances, and only when accompanied by appropriate documentation. Any student with a valid reason to be given a make up exam must contact me prior to the exam, either by email or in person, and present documentation at the next class session attended.