## Math 234: Course Syllabus – Spring 2013

**Course logistics:** 

Time and Location: Tuesday & Thursday 3:30pm - 4:45pm, 251 Mercer St., CIWW 517

Instructor: Michael O'Neil
Email: oneil@cims.nyu.edu
Phone: 212-992-5874

Office: Room 1105A, Warren Weaver Hall
Office hours: Thursday 11:00am – 1:00pm

Course website: See NYU Classes

Recitation time: Friday 2:00pm – 3:15pm, 25 W. 4th St., C-8

Teaching assistant: Alex Rozinov

Email: <u>ar1855@cims.nyu.edu</u>

**Course information:** 

Description: This course is intended as a thorough mathematical introduction to the

theory of statistics, intended to be taken after sufficiency in probability is obtained at the level of Math 233: Theory of Probability. Topics covered in

this class will include: sampling theory, hypothesis testing, point

(parameter) estimation, regression and linear least squares, the bootstrap, tests of significance, likelihood methods, and an intro to Bayesian statistics. The course will mainly focus on analytical approaches, but will contain computational aspects of statistics such as simulation, least squares, tests of

significance, etc.

Text: Mandatory, homework problems will be assigned from it:

Bulmer, Principles of Statistics

Suggested references:

Rice, Mathematical Statistics and Data Analysis

Wasserman, All of Statistics

Casella & Berger, *Statistical Inference* (graduate level)

Schaum's Outline of Statistics

Grading: The grade for the course will be determined based on weekly homework

assignments, a midterm, and a final exam. The following rubric will be used:

Homework 30% Midterm 30% Final 40%

The lowest homework grade will be dropped. Homework is due at the beginning of class on the due date; in the interest of fairness, absolutely no late assignments will be accepted. Exams will not be rescheduled. The midterm is scheduled to be in-class on Thursday, March  $14^{\rm th}$ . The final is scheduled by NYU, and is (tentatively) slated for May  $16^{\rm th}$  at  $4:00\,{\rm pm}$ , room

TBA.