Course Objectives:

Welcome to quantitative data analysis! Using R, the freely available and acclaimed computing language, this course will cover the necessary basics for introductory statistical modeling, from data collection and visualization to model specification and write-up. Throughout the semester, students will conduct analyses on real data and organize their analyses into a final presentation and paper.
Textbooks and Materials:

- Hard copies available on through the publisher’s website: http://www.mosaic-web.org/go/StatisticalModeling/

- Free electronic version available: http://r4ds.had.co.nz/index.html
- Hard copies also available online for purchase (though not necessary)

Laptop computer with R installed
- For the laboratory portion of the course, I will assume that you will bring a laptop that can support R. All well-functioning modern laptops will have this capacity.
- If you do not have access to such a laptop, please let me know before enrolling and we will attempt to make alternative arrangements.
- We will cover R installation in the first week of class.

Prerequisites:

ENVST-UA100 Environmental Systems Science, or Permission of Instructor

Overview:

Each week will be centered around a new statistical topic with a lecture on Tuesday followed by a laboratory session on Thursday. Before Thursday lab, students will be expected to have read the materials and completed the take-home assignment. During lab, students will work in groups and all students will work on the same question set and data. A lab report based on this work will be due by the end of the lab session. Each week, following the lecture, readings, and laboratory experience, students will apply what they have learned about the topic to an analysis of their own data, building towards their final project. A brief report applying the previous week’s topic to their project will be due the following Tuesday before lecture.

Grade breakdown:

- Academic Professionalism 10%
- Labs & Participation 30%
- Project Homework 10%
- Final Presentation 20%
- Final Paper 30%
Disability Disclosure Statement:

Academic accommodations are available to any student with a chronic, psychological, visual, mobility, learning disability, or who is deaf or hard of hearing. Students should please register with the Moses Center for Students with Disabilities at 212-998-4980.