Learning Objectives

Basic principles and techniques in data analytics; methods for the collection of, storing, accessing, and manipulating standard-size and large datasets; data visualization; and identifying sources of bias. Intro to modeling. Presentation. The concepts will be implemented with R and some Python.

Topics and tentative schedule

Week of 8/25: Week of 9/1:

Introduction to R and RStudio
Intro to Data Science ; Practical Data Science with R: Forward, Ch. 1**,** Ch2 (brief mentioning of SQL)

Week of 9/8: "**Practical Data Science with R"**, Ch.3

Week of 9/15: "**Practical Data Science with R"**, Ch.4

Week of 9/22: **Intro to Python and Python for Data Analysis**;

"Python for Data Analysis", Ch1 and 2; Appendix

Week of 9/29: "**Python for Data Analysis"**, Ch3, Ch4

Week of 10/6: "**Python for Data Analysis"**, Ch5, Ch6

Week of 10/13: "**Python for Data Analysis"**, Ch7, Ch8

Week of 10/20: "**Catch up week**"

Week of 10/27: "**Practical Data Science with R"**, Ch.5

Week of 11/3: "**Practical Data Science with R"**, Ch.6

Week of 11/10: "**Practical Data Science with R"**, Ch.8

Week of 11/17: "**Practical Data Science with R"**, Ch. 10 and 11

Week of 12/1: "**Catch up week**"

Dec 8th: Project due for all teams.

Dec 8th: Presentation of project Teams 1-5; all teams present.

Dec 10th: Presentation of project Teams 6-10; all teams present.