STAT GR5293 Statistical Graphics, Fall 2017

TR 5:40pm-6:55pm; 420 Pupin Laboratories

Instructor: Prof. Joyce Robbins jtr13@columbia.edu

Office Hours: Wed, 11:30pm-1:00pm (or by appt.), 603 Watson Hall (612 W. 115th St.)

Course TAs: Yuting An and Rachel Zheng

Communication:

We will be using Piazza for online class discussion. You are encouraged to post questions here first, where you can receive quick answers from your classmates. You are also encouraged to monitor the discussions and help out your classmates as much as possible. I expect the tone of the discussion to be civil and friendly and will not tolerate disrespect.

Required Book:

Unwin, Antony. 2015. *Graphical Data Analysis with R.* CRC Press. ISBN 978-1498715232

Recommended Books:

Viz Theory

Cleveland, William. 1993. *Visualizing Data*. Hobart Press.

Munzner, Tamara. 2014. *Visualization Analysis & Design.* CRC Press.

Robbins, Naomi. 2013. *Creating More Effective Graphs*. Chart House.

R Resources

Peng, Roger D. 2016. *R Programming for Data Science, 5th ed.* Leanpub.

Wickham, Hadley. 2016. *ggplot2: Elegant Graphics for Data Analysis, 2nd ed.* Springer.

Wickham, Hadley and Garrett Grolemund. 2017. *R for Data Science*. O'Reilly. Web version.

Grading:

Your grade will be based on the following:

20% Test #1 **(Oct 12)**

20% Test #2 **(Nov 21)**

25% Homework Assignments (due **Sept 19, Oct 3, Oct 26, Nov 14)**

5% Community Contribution (due **Oct 24**)

25% Final Project **(**due **Dec 5)**

5% Peer Review of Final Projects (due **Dec 12)**

Community Contribution

This fairly open-ended assignment provides an opportunity to receive credit for contributing to the collective learning of the class, and perhaps beyond. To complete the assignment you must submit a short description of your contribution. If appropriate, attach relevant files. (The due date is set at the end of the semester for allow for contributions related to the final project. However, you are encouraged to work on it and share as earlier as possible in order to be more helpful to the class.) **Use Piazza to ask for and offer help.**

There are many ways in which you can contribute:

- give a well-hearsed 5 minute lightning talk in class (live or video) on a datavis topic (theory or tool)
- create a cheatsheet or other resource
- be a Piazza super user
- write a tutorial for a tool that's not well documented
- translate a useful resource into another language
- build a viz product (ex. htmlwidget) for class use
- create a web site for sharing class resources publicly
- provide significant subject matter help to a classmate
- organize and a lead a help session on a topic you've mastered
- other...