Prospective Syllabus

Prerequisites: Find a dataset that you will investigate throughout the quarter.

Week 1

INTRODUCTION TO STATISTICAL JOURNALISM AND METHODS

Read: Precision Journalism, Philip Meyer
Do: R in Action, Robert I. Kabacoff, Parts I and II

Week 2

ORGANIZING THE DATA

Read: Visualize This, Nathan Yau, ch. 1–3
Do: R in Action, Robert I. Kabacoff, Part III and ch. 16
Organize data into a usable format (with help from ch. 2 of Visualize This)

Week 3

CHOOSING STORIES AND CHOOSING TOOLS

Read: Visualize This, Nathan Yau, ch. 4–9
Do: Use new R skills to find a story in the dataset.
Interactive Data Visualization for the Web, Scott Murray (for d3.js, find something else if another visualization tool is chosen)

Week 4

STORYBOARDING AND PROTOTYPING

Read: The Visual Display of Quantitative Design, Edward Tufte
Explore as many existing data visualizations as possible for inspiration (always be doing this, but pay particular attention this week).
Do: Prototype visualizations that tell the story (pen + paper, R, d3.js, or otherwise)

Week 5

CREATING THE DEVELOPMENT ENVIRONMENT

Read: Getting Real, 37signals (I have five weeks from here to build a whole data presentation. I'd better learn how.)
Do: Begin development of the final project as it will appear on the web. This means creating the development environment (Django app tied to previously organized database or whatever) and moving prototyped versions into the new environment. If pairing with a publication, replicate their development environment locally.

Week 6

BEGINNING OF THE END

Read: Show Me the Numbers, Stephen Few
Do: Begin work on the first iteration.

Week 7

ITERATION 1

Read: Universal Principles of Design, William Lidwell
Do: Finish the first iteration (basic states, no interactivity)

Week 8

ITERATION 2

Read: ?
Do: Finish the second iteration (improvements from the first, basic interactivity)

Week 9

ITERATION 3

Read: ?
Do: Finish the third iteration (essentially final, one more time for corrections, demo for paired publication if necessary)

Week 10

FINAL ITERATION / LAUNCH

Read: ?
Do: Finish the final iteration and launch the project (either deploy to own hosted server or publish with paired publication)

Grading Policy

Readings: 20% of grade. Assessment of completion of readings will happen through discussion of topics in reading during weekly meetings with advisors.

Tutorials (R in Action, d3 tutorials): 30% of grade. Assessment of completion will happen through demonstration of the lesson tutorials during weekly meetings with advisors. Focus will be on the student's grasp of the concepts provided in the tutorial, not on whether the directions of the tutorial were followed explicitly.

Final project: 50% of grade. Each of the three iterations will receive 10% of the grade, while the final product will receive the remaining 20% of the grade. Assessment of the iterations will happen through demosntration during weekly meetings, and the final project will include a more formal presentation of the project, hopefully to a wider audience. The following aspects of the project will be assessed:

- Overall design: Is the design aesthetically pleasing? Is it easy to follow? Does the design allow the story to be told effectively?
- Interactivity: Do all of the interactive functions work as expected? Does the interactivity add anything to the story being told?
- Storytelling: Is the story told by the data compelling and interesting? Is the story told well, or are components missing that would make the story understandable?
- Statistical analysis: Is the statistical analysis correct? Are the numbers presented misleading in any way?