

## Final Exam Topics: CS X415.1 Spring, 2017

April 12, 2017

### Topics

1. The "tidy approach" to data science
2. dplyr for data wrangling
3. Tidying data frames and JSON data
4. Tidyverse packages (as discussed in class)
5. Using leaflet and geospatial data for mapping
6. Developing Shiny apps for data visualization

**Problem types:** short answer problems, writing short code snippets, similar to in-class problems and exercises.

You may use your notes during the final exam, hard copy or on your computer. **No use of the R interpreter during the exam.** The exam will be time-limited (~1.5 hours), so you will not have time to study topics, do research on the web, or experiment with R during the exam!