

Syllabus | Data-driven reporting, Spring 2017

This syllabus is for the Spring 2017 data reporting classes at the University of Texas at Austin. Undergraduate and graduate sections are concurrent.

J 327D REPORTING WITH DATA	Day	Time	Location
08075	MW	6:00 - 7:30	CMA 4.152
J 395 45-DATA VISUALIZATION	Day	Time	Location
08405	MW	6:00 - 7:30	CMA 4.152

Prerequisite

Graduate standing or upper-division standing and Journalism 310F (or 320D) with a grade of at least B-.

Description

This course will teach you the basic skills to use data analysis for news reporting. Students will learn how to request data from public and governmental sources, to clean up and analyze that data using tools such as Excel, Tableau and SQL, and use simple statistical models to accurately report based on the data.

Objectives

- Learn how to request and negotiate for electronic data from government agencies and other sources.
- Learn about and use common governmental data clearinghouses from local, state and national sources.
- Learn to clean up existing data and organize primary data to prepare for analysis.
- Learn how to use spreadsheet and database software to analyze data, including the use of relational databases.
- Learn to use patterns and “answers” from data to create data review reports, source lists and fully-reported stories.
- Learn how to use statistical models to define and contextualize data in news reporting.

Instructor

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Office hours directly following class or upon request. I may not check my university email during the day as I have a day job. If you need to reach me in a hurry, text me.

Resources

IRE Membership

I recommend that students join Investigative Reporters & Editors. Price is \$25/year for students, but with that membership, you get, [among other things](#):

- 1-year Premium subscription to [CometDocs](#), a \$70 value.
- 1-year [Tableau Desktop](#) license. This software [typically costs \\$1000](#).

There are freemium versions of both software applications, but having the real deal helps.

Required texts

- [Finding Stories with Spreadsheets](#) by Paul Bradshaw (~\$20). If you think you might be interested in scraping data from websites, consider the bundle that includes [Scraping for Journalists](#). (\$25)
- [Numbers in the Newsroom](#) by Sarah Cohen (\$15 with discount code IREmember2017.)
- [Data Journalism Handbook](#) (Free).
- Other online readings, as assigned.

Software

In the 2014-2016 UT Catalog, the School of Journalism requires students to have a laptop capable of running Microsoft office and Adobe Creative Suite. You are encourage (implored, even) to use your own computer during this class. If you are limited to the lab, you will be at a disadvantage as you'll invariably have homework that requires a computer. All software used is available on both Macs & PCs, but know I will be using a Mac to demonstrate these skills.

- Microsoft Office. We'll be using Excel in class, which will be on the computers in the lab. But if you don't have Office on your personal computer already, you really ought to buy it from the [UT Campus Computer Store](#). \$20 for download version. You can probably do everything with free [Libreoffice](#) or Google Spreadsheets, but I'll be using Excel.
- You *may* be required to buy database software that should not run more than \$40. I'm looking for a free alternative, but not having any luck.
- We'll be using other software tools for assignments. These are typically free for the level we are using them or I have acquired educational licences.

Course outline

I will adjust this class based on progress, so the outline below is just a guide. See the course in Canvas for a full outline of assignments and readings.

Week	Description
1	Introduction
2	The data journalism workflow and process
3	Excel skills: Sort, filter, pivot tables, formulas and charting

4	Exploring data in Tableau
5	Exploring the Census
6	Tableau in practice with Census
7	Reporting progress on data acquisition
8	Cleaning data: Regex and Refine
9	Spring Break
10	Refine and MySQL Prep
11	Databases in MySQL
12	Demos & Labs: Prepping data with csvkit
13	Demos & Labs: Joins in Tableau
14	Demos & Labs: Device preview in Tableau
15	Demos & Labs: Javascript charts
16	Labs & Presentations

Grading

- (10%) **Participation***: Students are expected to come to class and participate in discussions and in-class assignments. This is a lab-centric course where skills are covered at a computer with instructor supervision, and each class builds upon the previous, so if you miss a class you will fall behind. If you must miss a class, tell me in advance, or I can't help you. Attendance in class is a part of your grade.
- (30%) **Quizzes**: In-class quizzes will include material from assigned readings, lectures and work done in class.
- (30%) **Assignments**: Some assignments are done in class, but others require out-of-class time to complete.
- (30%) **Final project**: This project will include a fully-reported story with at least three sources based on pre-approved data sets obtained by the students. The process will include a pitch, analysis, data report and visualization. If you fail the final, you will not receive an A no matter the math on your other grades. This project is due May 3, 2015.

*By UT Austin policy, you must notify me of your pending absence at least fourteen days prior to the date of observance of a religious holy day. If you must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence.

Graduate credit

This class is cross-listed for graduate students. Those students will have additional assignments and have more rigor applied to some of the other assignments.

Quantitative reasoning flag

This course carries the [Quantitative Reasoning flag](#) for undergraduates. Quantitative Reasoning courses are designed to equip you with skills that are necessary for understanding the types of quantitative arguments you will regularly encounter in your adult and professional life. You should therefore expect a substantial portion of your grade to come from your use of quantitative skills to analyze real-world problems.

Grading scale

The grading scale for the course will be as follows:

- A: 94-100
- A-minus: 90-93.99
- B-plus: 87-89.99
- B: 84-86.99
- B-minus: 80-83.99
- C-plus: 77-79.99
- C: 74-76.99
- C-minus: 70-73.99
- Anything below a 70 is failing.

About academic dishonesty

- Plagiarizing or using someone else's material, another media source, student work or even yourself and representing it as new for this class. You can't turn in a story or media project from a previous class without the instructor's permission.
- Making up quotes, sources and facts.
- Not interviewing people who appear in your stories.
- Not giving appropriate attribution or citation of a source or background information.
- Cheating during a quiz or an assignment.

Moody writing center

The [Moody College Writing Support Program](#), located in BMC 3.322, offers one-on-one assistance without charge to students seeking to improve their professional writing in all fields of communication. Students may book half-hour appointments on our website or drop in for assistance during all stages of the writing process.

More important stuff

- Obey the [honor code](#).
- Stay safe. [Campus security](#) and [emergencies](#).
- The University of Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 512-471-6259, 512-471-6441 TTY, <http://diversity.utexas.edu/disability/about/>

- More University [policies and places to get help](#).