

Fall 2020 – Thursdays – 5-7 p.m.

Section: 21690D

Location: Online

I. Course Description

From social media behavior to mortgage application denials, large amounts of information are being collated and quantified in vast and ever-growing datasets. If analyzed correctly, data can tell us a lot about society and its institutions – how they function and where they fail. Because of this, journalists must learn how to mine datasets for stories that are compelling, authoritative, and ground-breaking. This class will teach students how to find and clean government datasets, provide them with the analytical and programming tools to quickly synthesize large amounts of information, and find the stories in the patterns and outliers.

II. Overall Learning Objectives and Assessment

You will learn:

- Data analysis
- Mapping analysis
- Data visualization
- Statistical analysis

This course will give students the tools necessary to find the patterns and outliers in any dataset that lead to the story. It will bolster their reporting and provide context to the anecdotes. The course is a hands-on class where students can practice the skills they've acquired.

It's important for students to learn how to efficiently query a dataset using a programming language like SQL (Structure Query Language), Python or R. Students will use these languages to interview data by aggregating, filtering, and joining datasets.

Reporting with data can also be done visually and spatially. Students will learn how to chart and map data because the story is sometimes better seen on a graph or map.

Lastly, statistics is a powerful tool in the data reporting skillset. Students will dabble in basic statistical concepts—standard deviation, correlations, histograms and scatterplots—to help them find more nuanced stories.

This is not a formal mathematics, statistics or programming course. Students are not required to master those skills. However, students will be required to understand the basic principles of those subjects to better grasp how data fits into the larger journalism ecosystem.

III. Course Notes

The course will use Blackboard for all assignment and project submissions. Copies of lecture slides, data sets and other class information will be also posted on Blackboard. E-mail should only be used by students for questions or clarifications.

IV. Description and Assessment of Assignments

Working with data is about practice and repetition. The class is setup to stress that through quizzes and homework assignments, ensuring students can practice the material and concepts covered in class on their own time. All homework assignments and quizzes will be reviewed in class. There will be eight quizzes throughout the semester but only six will count toward the final grade and the two lowest grades will be dropped. The final project is an opportunity for students to apply the knowledge they acquired during the semester in whatever program or programming language they feel most comfortable working in.

The final project is an opportunity for students to implement all the skills they've learned during the course. Students will have to find a dataset, clean it and analyze it, and write a memo describing their findings and pitching a story based off those findings. Students can use whichever program or programming language they feel most comfortable working with to analyze the data.

Students may also use the data, reporting and graphics from either of the data-driven stories for their Capstone project.

V. Grading

a. Breakdown of Grades

Assignment	% of Grade
Homework Assignments	40%
Final Project	30%
Quizzes	15%
Participation	15%
TOTAL	100%

b. Grading Scale

95% to 100%: A	80% to 83%: B-	67% to 69%: D+
90% to 94%: A-	77% to 79%: C+	64% to 66%: D
87% to 89%: B+	74% to 76%: C	60% to 63%: D-
84% to 86%: B	70% to 73%: C-	0% to 59%: F

c. Grading Standards

All assignments will be edited on a professional basis and you will be judged first on the accuracy, fairness and objectivity of your stories. You will then be evaluated for broadcast style, editing, production value, originality and the ability to meet deadlines.

“A” stories are accurate, clear, comprehensive stories that are well written and require only minor copyediting (i.e., they would be aired or published). Video work must also be shot and edited creatively, be well paced and include good sound bites and natural sound that add flavor, color or emotion to the story.

“B” stories require more than minor editing and have a few style or spelling errors or one significant error of omission. For video, there may be minor flaws in the composition of some shots or in the editing. Good use of available sound bites is required.

“C” stories need considerable editing or rewriting and/or have many spelling, style or omission errors. Camera work and editing techniques in video stories are mediocre or unimaginative, but passable. Sound bites add little or no color - only information that could be better told in the reporter’s narration.

“D” stories require excessive rewriting, have numerous errors and should not have been submitted. Camera work is unsatisfactory or fails to show important elements.

“F” stories have failed to meet the major criteria of the assignment, are late, have numerous errors or both. Your copy should not contain any errors in spelling, style, grammar and facts. Any misspelled or mispronounced proper noun will result in an automatic “F” on that assignment. Any factual error will also result in an automatic “F” on the assignment. Accuracy is the first law of journalism. The following are some other circumstances that would warrant a grade of “F” and potential USC/Annenberg disciplinary action:

- Fabricating a story or making up quotes or information.
- Plagiarizing a script/article, part of a script/article or information from any source.
- Staging video or telling interview subjects what to say.
- Using video shot by someone else and presenting it as original work.
- Shooting video in one location and presenting it as another location.
- Using the camcorder to intentionally intimidate, provoke or incite a person or a group of people to elicit more “dramatic” video.
- Promising, paying or giving someone something in exchange for doing an interview either on or off camera.
- Missing a deadline.

VI. Assignment Rubrics

These will differ by assignment and will be provided in class.

VII. Assignment Submission Policy

Journalism is a deadline-driven industry. To that end, deadlines are important in this course. It’s imperative that students meet all deadlines and it’s their responsibility to communicate with the instructor if they are unable to meet a deadline in a timely manner.

Unless otherwise specified, students have a week to complete homework assignments and are **due the following Thursday by 4pm**. Late submissions will be docked points.

Assignments must be submitted via Blackboard.

VIII. Required Readings and Supplementary Materials

Readings: We will be reading works of data-driven stories throughout the semester, some of which can be found in the course schedule breakdown. Other online readings will be added throughout the course.

Required software: (all free online and we will install in class)

- Excel or Google Sheets
- SQLite and DB Browser for SQLite
- Python and Pandas or R and RStudio (only one will be taught in class)

IX. Laptop Policy

All undergraduate and graduate Annenberg majors and minors are required to have a PC or Apple laptop that can be used in Annenberg classes. Please refer to the [Annenberg Digital Lounge](#) for more information. To connect to USC's Secure Wireless network, please visit USC's [Information Technology Services](#) website.

X. Add/Drop Dates for Session 001 (15 weeks: TBD)

Sept. 4: Last day to register and add classes for Session 001

Sept. 4: Last day to drop a class without a mark of "W," except for Monday-only classes, and receive a refund for Session 001

Oct. 2: Last day to drop a course without a mark of "W" on the transcript for Session 001. [Please drop any course by the end of week three (or the 20 percent mark of the session) to avoid tuition charges.]

Oct. 2: Last day to change pass/no pass to letter grade for Session 001. [All major and minor courses must be taken for a letter grade.]

Nov. 6: Last day to drop a class with a mark of "W" for Session 001

XI. Course Schedule: A Weekly Breakdown

Important note to students: Be advised that this syllabus is subject to change - and probably will change - based on the progress of the class, news events, and/or guest speaker availability.

Date	Topics/Daily Activities	Readings:	Assignments
Week 1: 8/20/20	Course Overview: Introductions: Syllabus Review. What's possible with Data Journalism? Software installation in class. Excel		New Yorker Excel Assignment Agency Research
Week 2: 8/27/20	Where to find data Public Records Excel Part 2		Public Records Cleaning Data

Week 3: 9/3/20	Data Structures: Data Types Data Diaries Importing Data Final Project Overview		Final Project Hypothesis
Week 4: 9/10/20	Good data vs bad data Methodologies Documentation Building your own dataset	Washington Post Police Shooting	Data Diary Assignment
Week 5: 9/17/20	SQL Keywords Databases: what are they? How to work with them?	New York Times COVID-19 Data Story	SQL Homework Assignment
Week 6: 9/24/20	Joining Tables: Why do you join tables Census Overview Where to get census data		Census Assignment
Week 7: 10/1/20	Programming and Pandas: Terminal Basic Python Intro to Pandas		Pandas Assignment
Week 8: 10/8/20	Data Visuals: Pandas Continued Charts & Graphics		Data-driven story assignment Final Project Progress Report
Week 9: 10/15/20	Mapping Geocoding Tiger Files Spatial Joins Spatial Analysis		Mapping Assignment
Week 10: 10/22/20	From Analysis to Story: Mapping Continued Reproducing 311 Analysis	Reading: BuzzFeed 311 Story	Homework: Final Project

Week 11: 10/29/20	Intro to Statistics Standard Deviation Natural Distribution Z-Scores Correlation FHA Analysis	Reading: ProPublica Machine Bias	Homework: Final Project
Week 12: 11/5/20	Statistics Part 2 Cleaning Data Regression Analysis	Reading: Reveal Redlining Story	Homework: Final Project
Week 13: 11/12/20	Final Presentations		Homework: Final Project
Exams Week: 11/19/20, 7-9 p.m.	Final Project Due		Final Project Due

XII. Policies and Procedures

Internships

The value of professional internships as part of the overall educational experience of our students has long been recognized by the School of Journalism. Accordingly, while internships are not required for successful completion of this course, any student enrolled in this course that undertakes and completes an approved, non-paid internship during this semester shall earn academic extra credit herein of an amount equal to 1 percent of the total available semester points for this course. To receive instructor approval, a student must request an internship letter from the Annenberg Career Development Office and bring it to the instructor to sign by the end of the third week of classes. The student must submit the signed letter to the media organization, along with the evaluation form provided by the Career Development Office. The form should be filled out by the intern supervisor and returned to the instructor at the end of the semester. No credit will be given if an evaluation form is not turned into the instructor by the last day of class. Note: The internship must be unpaid and can only be applied to one journalism or public relations class.

Statement on Academic Conduct and Support Systems

a. Academic Conduct

Plagiarism

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Part B, Section 11, “Behavior Violating University Standards” policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, policy.usc.edu/scientific-misconduct.

USC School of Journalism Policy on Academic Integrity

The following is the USC Annenberg School of Journalism’s policy on academic integrity and repeated in the syllabus for every course in the school:

“Since its founding, the USC School of Journalism has maintained a commitment to the highest standards of ethical conduct and academic excellence. Any student found plagiarizing, fabricating, cheating on examinations, and/or

purchasing papers or other assignments faces sanctions ranging from an 'F' on the assignment to dismissal from the School of Journalism. All academic integrity violations will be reported to the office of Student Judicial Affairs & Community Standards (SJACS), as per university policy, as well as journalism school administrators."

In addition, it is assumed that the work you submit for this course is work you have produced entirely by yourself, and has not been previously produced by you for submission in another course or Learning Lab, without approval of the instructor.

b. Support Systems

Counseling and Mental Health - (213) 740-9355 – 24/7 on call

studenthealth.usc.edu/counseling

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call

suicidepreventionlifeline.org

Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Relationship and Sexual Violence Prevention and Services (RSVP) - (213) 740-9355(WELL), press "0" after hours – 24/7 on call

studenthealth.usc.edu/sexual-assault

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office of Equity and Diversity (OED)- (213) 740-5086 | Title IX – (213) 821-8298

equity.usc.edu, titleix.usc.edu

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants. The university prohibits discrimination or harassment based on the following *protected characteristics*: race, color, national origin, ancestry, religion, sex, gender, gender identity, gender expression, sexual orientation, age, physical disability, medical condition, mental disability, marital status, pregnancy, veteran status, genetic information, and any other characteristic which may be specified in applicable laws and governmental regulations. The university also prohibits sexual assault, non-consensual sexual contact, sexual misconduct, intimate partner violence, stalking, malicious dissuasion, retaliation, and violation of interim measures.

Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298

usc-advocate.symplicity.com/care_report

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office of Equity and Diversity | Title IX for appropriate investigation, supportive measures, and response.

The Office of Disability Services and Programs - (213) 740-0776

dsp.usc.edu

Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

USC Support and Advocacy - (213) 821-4710

uscса.usc.edu

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity at USC - (213) 740-2101

diversity.usc.edu

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call

dps.usc.edu, emergency.usc.edu

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-120 – 24/7 on call

dps.usc.edu

Non-emergency assistance or information.

Annenberg Student Success Fund

<https://annenbergsuccessfund.usc.edu/current-students/resources/additional-funding-resources>

The Annenberg Student Success Fund is a donor-funded financial aid account available to USC Annenberg undergraduate and graduate students for non-tuition expenses related to extra- and co-curricular programs and opportunities.