USC Annenberg

JOUR 546: News, Numbers and Introduction to Data Journalism
2 Units

Fall 2020 – Tuesdays – 6:30-8:10 p.m.
Section: 21568D
Location: Online

Instructor: Dana Amihere
Office Hours: Tues., 8:10-9 p.m., Thurs., 9:30-11 a.m., and by appointment

I. Course Description

In this information age, data has never been so abundant and available. It is a crucial part of journalism, and all journalists need to know how to find stories in data and how to understand facts and figures provided to them by outside organizations. This course is an overview of the basic quantitative analysis tools and techniques essential to give perspective to a story or to put it into context.

II. Overall Learning Objectives and Assessment

- Numeracy: measure change, make comparisons and examine trends
- Gathering and parsing data
- How to use tools to analyze data
- Storytelling with data
- Visualizing data with graphics and maps

Using Google Sheets as one of the main tools, this course will cover crucial news numeracy, including percentages, medians, averages, weighted averages, mean, median, minimum, maximum and ranking.

Once you have an understanding of numbers and basic statistics as they relate to journalism, we will delve into where and how to get data sets, and cover the myriad forms in which government data in particular are distributed. Having a clean data set is the first step in data journalism. The real goal is an engaging news story that uses the data as a source, not unlike any other source a reporter would use. You will learn to "interview" the data to find the story in the numbers, which may or may not support your original hypothesis, just as a human source may or may not support your original story idea.

This course will prepare you to delve deeper into data journalism. Proficiency with gathering, cleaning, analyzing and visualizing data (both for analysis and presentation) is essential in journalism as commodity content becomes increasingly ineffective in today's niche, multichannel media environment.

III. Description of Assignments

There will be a series of practical assignments working with data. You will be working with a dataset to produce a final project that showcases all the skills acquired throughout the semester.

IV. Grading
a. Breakdown of Grade

Assignment	% of Grade
Assignments	40%
Data story, methodology, graphics	45%
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 adherence to AP style, spelling and grammar, 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).

"B" stories require more than minor editing and have a few style or spelling errors or one significant error of omission.

"C" stories need considerable editing or rewriting and/or have many spelling, style or omission errors.

"D" stories require excessive rewriting, have numerous errors and should not have been submitted.

"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.

V. Assignment Submission Policy
A. All assignments are due on the dates specified. Lacking prior discussion and agreement with the instructor, late assignments will automatically be given a grade of F.
B. Assignments must be submitted via email prior to the start of class.

VI. Required Readings and Supplementary Materials

Numbers in the Newsroom: Using Math and Statistics in News
By Sarah Cohen, Investigative Reporters and Editors, 2001, 108 pages.
Available online at www.ire.org

The Data Journalism Handbook: How Journalists Can Use Data to Improve the News
Available online for free at: https://datajournalism.com/read/handbook/two

More contemporary news readings will be added throughout the course.

VII. 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.

VIII. Add/Drop Dates for Session 955 (3 weeks: 6/29/20-7/17/20)
Friday, Sept. 4: Last Day to Drop w/o a "W" or Change P/NP or Audit Enrollment Option or Receive a Refund; Last Day to Register or Add Classes
Friday, Oct. 2: Last Day to Withdraw w/o a "W" on Transcript or Change P/NP to Letter Grade (no refund allowed)
Friday, Nov. 6: Last Day to Drop with a "W"

IX. 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	Class Topics	Readings & Assignments	Final Project Deliverables

Aug. 18	**Course Overview: What is data journalism? Where & how to acquire data** Introductions. Skills assessment. Class goals/infrastructure. Where to find data. Useful online data gathering sites and tools. Overview of final project.	**Readings:** Data Journalism Handbook: Chapter 1: Introduction Cohen, Chapters 1 & 2	
Aug. 25	**Spreadsheets Part 1 –** Numeracy: Basic spreadsheets including rows, columns, cells, importing, sorting, and filtering. Numeracy: percentages, medians, averages, weighted averages, mean, median, min, max and ranking.	**Readings:** "Speeding Cops" three-part series from *The Sun Sentinel* **In-class Assignment:** Practice formulas and sorting with selected dataset.	
Sept. 1	**Spreadsheets Part 2 - Pivot tables, Data visualization for analysis.** Review of spreadsheets. Pivot tables, importing data. Distribution: histograms. Useful visualizations: scatterplots, bar charts, line charts.	**Reading:** Data Journalism Handbook: Chapter 2: In the Newsroom. **In-class Assignment:** Practice exercises with speeding cops data.	**FP Milestone:** Select the dataset you will work with. Submit a 1-2 paragraph brief on what the dataset is, who maintains it and a few story ideas that might come from it.

Sept. 8	**Spreadsheets Part 3 - Putting it all together** We'll take a dataset, analyze it, and brainstorm possible executable story ideas and visualizations based on our findings.	**In-class Assignment:** Spreadsheets review worksheet with provided dataset **Reading:** Data Journalism Handbook: Chapter 3: Case Studies. Read "The Tennis Racket" from BuzzFeed News	
Sept. 15	**Data law, ethics and reading the numbers** What are your rights, what are your limitations? What are your responsibilities? Learn about FOIA and CPRA to request data. Verify press release numbers.	**Reading:** Data Journalism Handbook: Chapter 4: Getting Data, Chapter 5: Understanding Data **In-class Assignment:** Press release analysis exercise.	**FP Milestone:** Clean, parse and analyze the data for your final story.
Sept. 22	**Cleaning "dirty" data** An overview of various formats data comes in. Converting data between formats, working with PDFs, cleaning data in Google Sheets and Workbench.	**Readings:** PAMA investigation from KPCC + LAist **In-class Assignment:** Dirty data "CAR" wash.	**FP Milestone:** Develop a story plan and submit a memo by the beginning of class on Sept. 29.
Sept. 29	**"Interviewing" your data** Refining the data. Finding the story behind the numbers.	**In-class Assignment:** You'll find the "character(s)" and the narrative behind the numbers in several selected datasets. **Readings:** Paige St. John's Pulitzer Prize-winning hurricane insurance scam investigation series	**FP Milestone:** You should be conducting interviews and refining your analysis based on reporting.

Oct. 6	**NO CLASS MEETING -** Work on interviews, reporting or data for your final project		
Oct. 13	**Writing with numbers humanely** Just because you have an idea and a dataset doesn't mean you have a story. We'll learn strategies to humanize data.	**Reading:** Data Journalism Handbook: Chapter 6: Delivering Data	

Oct. 20	**Data visualization tools - Part 1** Overview of data visualization tools that are free and easily accessible: Carto, Datawrapper, Infogram and other tools.	**Readings:** Selections from Alberto Cairo, etc. on misleading with data and data visualization. "Patterns for Humane Data Visualization" on Source	**FP Milestone:** Rough draft of data story due.
Oct. 27	**Data visualization tools - Part 2** We'll wrap-up our hand-on demos of data viz tools.	**In-class Assignment:** Practice creating several types of data visualizations from importing the data and to production.	**FP Milestone:** You should have started working on your methodology and data visualization.
Nov. 3 (Election Day)	**Beyond the basics** What's the next step in data and data viz past Google Sheets and free online tools? We'll demo more advanced tools and techniques.		**FP Milestone:** You will get edits and feedback on your data story. Complete methodology and data visualization.
Nov. 10	**OPTIONAL CLASS MEETING -** Instructor available for questions on		**FP Milestone:** Make final tweaks and edits to your final project.

	data, reporting or production related to final project		Final Project due by 6:30 p.m. Nov. 17.
Nov. 17	**Final Exam (7-9 p.m.)** Discussion of final projects and course wrap-up.		

X. 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 class.

Statement on Academic Conduct and Support Systems
a. Academic Conduct
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 Section 11, *Behavior Violating University Standards* https://scampus.usc.edu/b/11-00-behavior-violating-university-standards-and-appropriate-sanctions/. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, http://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
Student Health Counseling Services - (213) 740-7711 – 24/7 on call

engemannshc.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 Services (RSVP) - (213) 740-4900 – 24/7 on call
engemannshc.usc.edu/rsvp
Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office of Equity and Diversity (OED) | Title IX - (213) 740-5086
equity.usc.edu, titleix.usc.edu
Information about how to get help or help a survivor of 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.

Bias Assessment Response and Support - (213) 740-2421
studentaffairs.usc.edu/bias-assessment-response-support
Avenue to report incidents of bias, hate crimes, and microaggressions for appropriate investigation 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
studentaffairs.usc.edu/ssa
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://annenberg.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.

XI. About Your Instructor

Dana Amihere is the data editor at KPCC, a Los Angeles-area NPR affiliate, where she leads the station's data visualization and digital storytelling efforts. Previously, she worked as an interactive editor at *The Dallas Morning News*, as a web developer for Pew Research Center's digital team and as an interactive designer for *The Baltimore Sun*.