

# MEJO 570 Data Driven Journalism

## Fall 2021

MW 9:30-10:45, CA 253  
Instructor: Ryan Thornburg  
Office: CA 215  
Office hours: By appointment  
Email: [ryan.thornburg@unc.edu](mailto:ryan.thornburg@unc.edu)

### Course Overview

Data Driven Journalism is an introduction to basic statistics and numerical and mathematical literacy, as well as a look at professional data-driven journalism projects. Students who successfully complete this course will be able to acquire, organize, analyze, and present data to a general news audience.

### Course Goals

By the end of this course, you will be able to

- identify and critique the use of data in news stories
- find and acquire newsworthy data sets
- evaluate data sets for errors and omissions
- clean and organize data
- "interview" data using spreadsheet software and descriptive statistics
- create data visualizations that highlight newsworthy elements of a data set
- use data to find and write new stories for a general audience

### Required Materials

#### Textbooks

- Practical R for Mass Communication, by Sharon Machlis
- Readings as assigned on Sakai
- Readings on digital reserve

#### Software

- You will need to [install R and R Studio on your computer](#)
- You will need to [sign up for a student account at GitHub](#) if you do not already have one

## Attendance Policy

If you are experiencing any [COVID-19 symptoms](#) please contact Student Health and do not attend class.

Class time on Mondays will be used primarily to help students work through hands-on technical exercises. Class time on Wednesdays will be used for discussion of data journalism stories and reporting assignments.

I am not able to recreate these experiences for students who miss class.

I do not know what recording capabilities will be available in our classroom. If I'm able to record class sessions or technical tutorials I will post them to the course Sakai page.

Any student required to quarantine or isolate due to COVID-19 is approved for University Approved Absences (UAA) for any classes missed. Absences without official notification from the University Approved Absence Office (UAAO) will not be excused. If needed, submit a request to [uaao.unc.edu](http://uaao.unc.edu). To minimize your need to provide additional documentation about your quarantine or isolation, Campus Health will work directly with the University Approved Absence Office to verify your request. While your request is being processed, make sure to let me know that you will be unable to attend class for the time-period you will be quarantined/isolated.

All students with University approved absences will be treated fairly and equitably, regardless of the reason for the absence. For all absences I will provide reasonable alternatives that permit course objectives and learning outcomes to be met. You'll hear from me within three days after letting me know about your absence. We'll make an arrangement within five days.

### University Policy:

No right or privilege exists that permits a student to be absent from any class meetings, except for these University Approved Absences:

1. Authorized University activities
2. Disability/religious observance/pregnancy, as required by law and approved by [Accessibility Resources and Service](#) and/or the [Equal Opportunity and Compliance Office](#) (EOC)
3. Significant health condition and/or personal/family emergency as approved by the [Office of the Dean of Students](#), [Gender Violence Service Coordinators](#), and/or the [Equal Opportunity and Compliance Office](#) (EOC).

## Late Work

Missed deadlines that aren't part of a University Approved Absence will result in a 10% reduction in the grade for the assignment for each day they are late. No late assignments will be accepted after the last class meeting.

## Calendar

	MONDAY - TECH	WEDNESDAY - STORY
Week 1 – Aug. 18		What is data reporting?
Week 2 – Aug. 23, 25	Set Up Your Computer: R & RStudio	Getting in a data state of mind (compared to what? USAT)
Week 3 – Aug. 30, Sep. 1	Getting to know R, RStudio projects & Rmarkdown	Words & Numbers
Week 4 – Sep. 6, 8	<b>Labor Day</b>	<b>Story critiques</b>
Week 5 – Sep. 13, 15	Importing & exporting data	Dirty data competition
Week 6 – Sep. 20, 22	Basic data exploration: filter, select, arrange	Data visualization concepts
Week 7 – Sep. 27, 29	Basic Visualization with GGPlot	Midterm: Housing Boom
Week 8 – Oct. 4, 6	Connecting two data sets	Case Story: The Census
Week 9 – Oct. 11, 13	Mutate, group, summarize, rename	Case Study: Inflation & Per Capita
Week 10 – Oct. 18, 20	Reshape data: wider & longer	Midterm: Housing Boom
Week 11 – Oct. 25, 27	Maps & geodata	<b>Midterm: Housing Boom</b>
Week 12 – Nov. 1, 3	Dealing with dates	Final Project: 2022 state elections
Week 13 – Nov. 8, 10	Strings: text as data	Final Project: 2022 state elections
Week 14 – Nov. 15, 17	GitHub: version control & collaboration	Final Project: 2022 state elections
Week 15 – Nov. 22	Data scraping with rvest	<b>Thanksgiving</b>
Week 16 – Nov. 29, Dec. 1	PDFs are the devil	Final Project: 2022 state elections
<b>Final Exam</b>	<b>Tuesday, Dec. 7, 4-7 p.m.</b>	

## Determination of Grade

Weekly Workbooks	10 points x 13 weeks = 130 points
Story Critiques	30 points
Midterm Story	40 points
Final Story Project	50 points

Your stories will be graded on objective and subjective criteria, as will whether you're hired and subsequently retained by a news or sports operation or marketing firm after you graduate. I will assess both the quality and quantity of your work.

## Grading Scale

Percentages will be converted to letter grades according to the following scale.

<b>Letter Grade</b>	<b>Percentage</b>	<b>Meaning</b>
<b>A</b>	94–100%	Excellent: Far exceeds standard
<b>A-</b>	90–93%	
<b>B+</b>	87–89%	Good: Exceeds standard
<b>B</b>	83–86%	
<b>B-</b>	80–82%	
<b>C+</b>	77–79%	Fair: Meets standard
<b>C</b>	73–76%	
<b>C-</b>	70–72%	
<b>D+</b>	67–69%	Poor: Shows growth but falls below standard
<b>D</b>	60–66%	
<b>F</b>	0–59%	Failing: Deficient

In addition, graduate students will produce a fifth project, with the same or greater rigor.

### **HONOR CODE:**

I expect that each student will conduct himself or herself within the guidelines of the University honor system (<http://honor.unc.edu>). All academic work should be done with the high levels of honesty and integrity that this University demands. You are expected to produce your own work in this class. If you have any questions about your responsibility or your instructor's responsibility as a faculty member under the Honor Code, please see the course instructor or Senior Associate Dean C. A. Tuggle, or you may speak with a representative of the Student Attorney Office or the Office of the Dean of Students.

### **SYLLABUS CHANGES**

The professor reserves the right to make changes to the syllabus, including project due dates and test dates. These changes will be announced as early as possible.

### **ARS**

The University of North Carolina at Chapel Hill facilitates the implementation of reasonable accommodations, including resources and services, for students with disabilities, chronic medical conditions, a temporary disability or pregnancy complications resulting in barriers to fully accessing University courses, programs and activities. Accommodations are determined through the Office of Accessibility Resources and Service (ARS) for individuals with documented qualifying disabilities in accordance with applicable state and federal laws. See the ARS Website for contact information: <https://ars.unc.edu> or email [ars@unc.edu](mailto:ars@unc.edu).  
(source: <https://ars.unc.edu/faculty-staff/syllabus-statement>)

### **COUNSELING AND PSYCHOLOGICAL SERVICES**

CAPS is strongly committed to addressing the mental health needs of a diverse student body through timely access to consultation and connection to clinically appropriate services, whether for short or long-term needs. Go to their website: <https://caps.unc.edu/> or visit their facilities on the third floor of the Campus Health Services building for a walk-in evaluation to learn more.

### **TITLE IX**

Any student who is impacted by discrimination, harassment, interpersonal (relationship) violence, sexual violence, sexual exploitation, or stalking is encouraged to seek resources on campus or in the community. Reports can be made online to the EOC at <https://eoc.unc.edu/report-an-incident/>. Please contact the University's Title IX Coordinator (Elizabeth Hall, interim – [titleixcoordinator@unc.edu](mailto:titleixcoordinator@unc.edu)), Report and Response Coordinators in the Equal Opportunity and Compliance Office ([reportandresponse@unc.edu](mailto:reportandresponse@unc.edu)), Counseling and Psychological Services (confidential), or the Gender Violence Services Coordinators ([gvsc@unc.edu](mailto:gvsc@unc.edu); confidential) to discuss your specific needs. Additional resources are available at [safe.unc.edu](http://safe.unc.edu).

### **POLICY ON NON-DISCRIMINATION**

The University is committed to providing an inclusive and welcoming environment for all members of our community and to ensuring that educational and employment decisions are based on individuals' abilities and qualifications. Consistent with this principle and applicable laws, the University's [Policy Statement on Non-Discrimination](#) offers access to its educational programs and activities as well as employment terms and conditions without respect to race, color, gender, national origin, age, religion, creed, genetic information, disability, veteran's status, sexual orientation, gender identity or gender expression. Such a policy ensures that only relevant factors are considered and that equitable and consistent standards of conduct and performance are applied. If you are experiencing harassment

or discrimination, you can seek assistance and file a report through the Report and Response Coordinators (see contact info at [safe.unc.edu](http://safe.unc.edu)) or the [Equal Opportunity and Compliance Office](#), or online to the EOC at <https://eoc.unc.edu/report-an-incident/>.

### **DIVERSITY**

I strive to make this classroom an inclusive space for all students. Please let me know if there is anything I can do to improve; I appreciate any suggestions. More broadly, our school has adopted diversity and inclusion [mission and vision statements](#) with accompanying goals. These complement the University policy on [prohibiting harrassment and discrimination](#). In summary, UNC is committed to providing an inclusive and welcoming environment for all members of our community and does not discriminate in offering access to its educational programs and activities on the basis of age, gender, race, color, national origin, religion, creed, disability, veteran's status, sexual orientation, gender identity, or gender expression. The Dean of Students (Suite 1106, Student Academic Services Building, CB# 5100, 450 Ridge Road, Chapel Hill, NC 27599-5100 or [919] 966-4042) has been designated to handle inquiries regarding the University's nondiscrimination policies.

### **ACCREDITATION:**

The School of Journalism and Media's accrediting body outlines a number of values you should be aware of and competencies you should be able to demonstrate by the time you graduate from our program. Learn more about them here:

<http://www2.ku.edu/~acejmc/PROGRAM/PRINCIPLES.SHTML#vals&comps>

No single course could possibly give you all of these values and competencies; but collectively, our classes are designed to build your abilities in each of these areas. In this class, we will address a number of the values and competencies, with special emphasis on the last six bullet dots under "Professional values and competencies" in the link above.

**NOTE:** Always be professional in your dealings with your fellow workers and the people you meet as you gather news. News directors and editors say they want people with good attitudes as well as solid journalism skills