MMC 2450: Data Literacy

Spring 2026 | 9:35 a.m. to 10:25 p.m. Thursdays | CSE E220

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Office hours: Wednesdays and Thursdays in room 1200A. No appointment or any day via Zoom

MY EXPERIENCE:
I landed my first newspaper job in 2002. It was with a small paper in southwest Florida. I covered traffic accidents, local governments, police and everything in between. But by 2006, I was ready to move on and applied for a reporter position at the Louisville Courier-Journal in Kentucky. Two weeks later, I called and asked the editor if he received my resume. He said he got my resume and 200 others. Needless to say, I did not get the job.

Geez, I thought. What could I do to separate myself from other future job applicants?

Later that year, I enrolled at the University of Missouri's master's program. Missouri is home to Investigative Reporters and Editors and the National Association for Computer-Assisted Reporting – two nonprofits. That's where I learned data journalism.

I've worked in three newsrooms since graduating from Missouri in 2008. All three had mass layoffs. But my name was never called. Why not? I'm convinced it's because I know data journalism. I had a skill that no one else in the newsroom had and that brought value to the paper, which – at least as far as I'm concerned – saved my job.

COURSE DESCRIPTION
I get it. You probably don't like numbers. You're not a "math person," as they say. But all communicators, journalists included, need to understand and employ simple math. You'll do that via data. In doing so, you'll be able to find and tell stories others can't. And you'll see that data isn't so scary.

COURSE OBJECTIVES
You'll be asked to learn how to communicate with data: How to find them, how to make sense of them and how to incorporate them into your stories via basic Excel formulas.

LEARNING OBJECTIVES
In this class you are to think like reporters. To do that, you'll be asked to:
- Understand how data can help you communicate
- Learn how to write with data
- Learn how to write basic Excel functions
- Larn how to create interactive graphics

OTHER (IMPORTANT) NOTES
- It is up to you to stay on pace, learn the material and do the work. I'll help every way I can, but you need to put in the effort.

- Pay attention to Canvas. This is a must.
- These classes build on each other. If you do not understand a concept, let me know. I want to catch you up to speed before you get too far behind.
- The more you use the skills that you learn in this class, the better data journalists you'll become. Practice, practice, practice.

BOOKS/MATERIALS
- Google Sheets.
- Excel. This is part of the Microsoft Office package available to students for free.

GRADING
Your grade will be determined on the following scale:

A	93 – 100	B-	80 – 82.9	D+	67 – 69.9
A-	90 – 92.9	C+	77 – 77.9	D	63 – 66.9
B+	87 – 89.9	C	73 – 76.9	D-	60 – 62.9
B	83 – 86.9	C-	70 – 72.9		

A – Superior. This work shows a superior understanding of the concepts, research, and analysis required by the assignment with few, if any, data-related errors. All answers must be supported by work that is clear, accurate and reproducible.
B – Above Average. This work shows a very good understanding of the concepts, research, and analysis required by the assignment with minimal data-related errors. Answers must be supported by work that is clear, accurate and reproducible.
C – Average. This work demonstrates a basic understanding of the concepts but is deficient in the research and analysis required by the assignment and includes many data-related errors. Some of the work needed to produce the answers is unclear, inaccurate or not reproducible.
D – Below Average. This work does not demonstrate an understanding of the concepts, is seriously deficient in the research and analysis required by the assignment, and includes excessive data-related errors. Little or no work is shown.
F – Deficient. This work is deficient on almost all counts.

EARNING THE GRADE YOU WANT
- Homework – 40%
- Midterm – 30%
- Final – 30%

HOMEWORK ASSIGNMENTS
Most weeks you'll have some sort of data journalism task to complete. These will be short, focused assignments that cover the material we recently learned.

TESTS
Midterm test:
This will open-notes test your understanding of what data journalism is and why it's important. It will also test your knowledge of basic Excel functions.

Final test:
This will test your skills analyzing data in Excel as well as creating an interactive chart or map in Datawrapper.

CLASS POLICIES
Attendance is imperative. These classes build on each other. What you learn today will help you understand the skills I'll teach in the next class.

We all are expected to attend each scheduled class and arrive on time prepared to participate. This includes coming to class with a computer and the necessary software loaded onto your machine.

Missing class does not change a deadline. All assignments are due when specified regardless of whether you expect to be in class, unless I've approved an alternate deadline in advance.
If there are special circumstances that prevent you from making arrangements for work missed because of an absence, please contact me or have a family member contact me as soon as possible, and I will do my best to work with you. I may require documentation.

Much of this class is hands-on that requires your participation. Part of that participation means asking questions, especially if you do not understand or cannot replicate a data query. Please speak up. If you have questions about a code that we're writing, chances are other students have the same questions. I need to know so I can help.

Behavior policies:
- Do not have conversation in class. This is disruptive.
- Do not arrive late or leave early. This is disruptive.
- Silence and keep your personal devices out of site. They are disruptive.
- Think twice about bringing food to class.

SUBMISSION OF ASSIGNMENTS
All written assignments must be submitted on the day they are due according to the guidelines outlined above and per the assignment description. Typically, assignments will be due at 11:59 p.m. on the day they are due. Please note that I will try to give you feedback as quickly as possible, but I too can get busy as the semester progresses.

All grades will be posted on Canvas.

You may turn in an assignment late once without penalty. After that, I will not accept late assignments.

ACADEMIC INTEGRITY
UF students must adhere to The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code."

On all student work at UF, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (https://sccr.dso.ufl.edu/process/student-conduct-code) specifies a number of behaviors that are in violation of this code and the possible sanctions. Also, students are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any

questions or concerns, please consult with me. Violations can result in a failing grade for the course and referral to the dean of students.

STUDENTS WITH DISABILITIES
Students with disabilities who experience learning barriers and would like to request academic accommodation should connect with the Disability Resource Center. It is important to share any accommodation letter with me and discuss access needs as early as possible in the semester.

COURSE EVALUATIONS
Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at **https://gatorevals.aa.ufl.edu/students/.** Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via **https://ufl.bluera.com/ufl/**. Summaries of course evaluation results are available to students at **https://gatorevals.aa.ufl.edu/public-results/**.

IN-CLASS RECORDING
The official UF policy regarding in-class recording, to comply with a 2021 Florida law can be found here.

HEALTH AND WELNESS
- U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit U Matter, We Care website to refer or report a concern and a team member will reach out to the student in distress.
- Counseling and Wellness Center: Visit the Counseling and Wellness Center website or call 352-392-1575 for information on crisis services as well as non-crisis services.
- Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need or visit the Student Health Care Center website.
- University Police Department: Visit UF Police Department website or call 352-392-1111 (or 911 for emergencies).
- UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville. Visit the UF Health Emergency Room and Trauma Center website.

ACADEMIC RESOURCES
- E-learning technical support: Contact the UF Computing Help Desk website, or phone 24/7 at 352-392-4357, or email helpdesk@ufl.edu.
- Career Connections Center: Career assistance and counseling services. Visit the website. Reitz Union Suite 1300, 352-392-1601.
- Library Support: Various ways to receive assistance with respect to using the libraries or finding resources. Visit the website.
- Teaching Center: General study skills and tutoring. Visit the website. Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420.
- On-Campus Student Complaints: Details are available through the Student Honor

COURSE SCHEDULE

(Please note: The course schedule may change depending how well students are grasping the techniques described in class. **Pay attention to Canvas for any changes.***)*

Week 1 – 1/15: Course intro
- What you can expect from me and what I can expect from you

Week 2 – 1/22: Telling stories with data
- What is data journalism? Why is it important? And what stories can we tell with data?

Week 3 – 1/29: How data can fool you
- Knowing your data is often the first and most important aspect of data literacy. Knowing your data's type and limitations is key.

Week 4 – 2/5: Intro to data quiz
- This open-notes, multiple choice quiz will test you on what we've learned so far.
- Afterwords we'll take our first look at Excel

Week 5 – 2/12: Sorting, sum and difference
- Excel makes math easy and a lot less scary

Week 6 – 2/19: Average, median and mode
- What's the difference and which ones should journalists use?

Week 7 – 2/26: Percents and percent change
- Normalizing data can reveal trends and spot stories.

Week 8 – 3/5: NICAR Conference (No class)
- Midterm take-home test

Week 9 – 3/12: Writing with numbers
- Yes, data can make your writing interesting, but too many numbers can make it boring.

Week 10 – 3/26: Probabilities
- It's sometimes important for journalists to calculate how likely something is to happen

Week 11 – 4/2: Correlations
- Correlations measure the strength and direction of a relationship. They help journalists identify patterns

Week 12 – 4/9: Datawrapper charts
- Without any code, Datawrapper can create interactive charts to help complement your writing.

Week 13 – 4/16: Datawrapper maps
- Datawrapper lets you map your data, with symbol, choropleth and locator maps

Final - TBA