JOU3305 Data Journalism

Fall 2019 | Class 16001 | Periods 3-5 Thursdays | Weimer 3324 (INC Mac lab)

Associate Professor Norman P. Lewis, Ph.D.

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About me: See my website or follow me (@bikeprof) on Twitter

Office hours are times devoted to students to drop in, first come, first served. If you have classes then, make an appointment. Or come anytime my door is open.

ABOUT THE COURSE

Course Purpose

To enable you to work professionally as a data journalist who acquires, cleans and analyzes data using spreadsheets and SQL databases.

Course Description

This course focuses on the numbers side of data journalism. You will learn how to find data to tell stories and how to find stories in data. No experience in spreadsheets or databases presumed. Pre-requisite: Journalism 3101 (reporting) or permission of instructor; course open to non-majors with an aptitude for journalism. For journalism majors needing a two-course sequence, this course pairs with the Data Visualization and Mapping class.
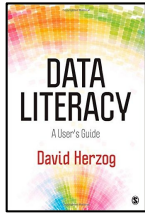
Course Outcomes

By the end of the semester, you should be able to:

- Evaluate the reliability of data sources and methods.
- Discover stories in data by detecting meaningful patterns.
- Find data to answer audience questions and test assertions by those in power.
- Acquire data by scraping websites and PDFs without custom programming.
- Clean messy data so it can be categorized and analyzed accurately.
- Acquire and analyze Census Bureau data.
- Write SQL queries to sort and filter data, and to join databases.

Required: IRE Membership

For just $25, the student rate, join Investigative Reporters and Editors (IRE) (which includes NICAR, the premiere association for data journalists) for one year and get free software. Plus, you will get access to inspiration and help for your data story, through great stories, tip sheets, data sets, and advice. Join. *Now*.

Textbook: Recommended but Not Required

"Data Literacy: A User's Guide" by David Herzog. Publisher: Sage, 2016. ISBN: 978-1483333465. Available as an [e-book](#) or paperback.

This is an excellent reference text by a master practitioner and data teacher. Because you won't be tested on the book and can pass the course without it, the book is not required. But buy it anyway. You'll be glad you did.

ASSIGNMENTS AND GRADING

Tentative Schedule

Wk	Date	Subject	
1	Aug. 22	Excel 1, Intro	An introduction to data journalism with Excel
2	Aug. 29	Excel 2, Formulas	Formulas, functions, sorts, filters
3	Sept. 5	Excel 3, Grouping	Nested sorts, pivot tables
	Sept. 12	(no class; prof at ONA)	
4	Sept. 19	Excel 4, String Functions	Parsing cells, joining cells,
5	Sept. 26	Excel 5, Charts	Basic charts in Excel
6	Oct. 3	Data Cleaning	Using Excel, Open Refine, etc., to fix inconsistencies in data
7	Oct. 10	Data Scraping	Parsing data from PDF and websites without coding
8	Oct. 17	Exam 1	
9	Oct. 24	SQL 1, Basics	A gentle introduction to database queries in Access
10	Oct. 31	SQL 2, Functions	Aggregate and intermediate queries in MySQL
11	Nov. 7	SQL 3, Joins	Enterprise and intentional joins in MySQL
12	Nov. 14	SQL 4, Big Data	More with MySQL, including large data sets
13	Nov. 21	Exam 2	
	Nov. 28	(no class; Thanksgiving)	

Semester Grade Allocation

Homework (low score drops) 40%
Class presentations 10%
Exam 1 (midterm) 15%
Exam 2 .... 15%
Publishable data story 20%

Homework

Homework is assigned after each class. The lowest score from the semester drops. Because you will have 5 days to complete each assignment, no extensions will be allowed unless you have an exemption covered by UF policy for the entire 5 days.

Class Presentations

You will provide a 10-minute analysis of a data story to the class. Instructions will be provided during the semester, along with sign-up times.

Exams
Each exam will be given in class. You can use your notes. A makeup exam is possible only if (a) the absence is covered by UF policy, (b) you contact me at least 30 minutes before class begins (phone preferred), and (c) you promptly provide written documentation.

Publishable Data Story
The story is due before 11:59 p.m. Monday, Nov. 25.

Data story often take longer than expected. It's not the skills required; you will have most of the skills you need by the third week of class. Instead, it's that the first and second ideas may prove unworkable because data are unavailable or unreliable. Therefore:
- If you want a good grade, start on this story by Sept. 10.
  - Starting early allows for the instructor to help you with drafts
  - Responding to instructor feedback lets you improve your story
  - Better story = clip to help you get a job (and a better grade)
- If you procrastinate, chances are your grade will suffer.

The importance of an early start cannot be overemphasized. Wait, and it's too late.

How the story is graded
This is a publishable data-driven story about any timely topic relevant to an audience. It can be targeted for any website, broadcaster or publication.

Pct	Category	Criteria
40%	Data-Driven	1. Story is based on data you obtain or generate.
		2. Story involves a sufficient amount of data with sufficient complexity that it requires a spreadsheet.
40%	Engagement	1. Story detects a meaningful pattern, such as UF doing better or worse than state or national averages. For example, crime rising because population is rising is expected, not a meaningful pattern.
		2. Story addresses a meaningful topic of import to society.
		3. Story is sufficiently relevant (and timely) to your chosen audience that story is likely to be widely shared via social media.
20%	Structure	1. At least two human sources, including one person who is representative of the point of the story and can serve as an opening anecdote or the person through whom the story is told.
		2. Story is easy to comprehend and follow because the writing is clear, precise and concise

Ideas
Start with the IRE website for how-we-did-that tip sheets and data-driven stories (both require membership).

<u>The story process</u>
Answer the following questions:
1. Who is the audience?
2. What is your target website, broadcaster, or publication for this story?
3. What hypothesis or research question does the story intend to answer?
4. What is the pattern you hope to detect?
5. Where or how are you going to get the data?
6. What analysis will you do with the data in Excel?
7. Whom are you hope to interview to humanize and contextualize the story?

Grading Scale

	Percent		Percent		Percent		Percent
		B+	89-87%	C+	79-77%	D+	69-67%
A	100-93%	B	86-83%	C	76-73%	D	66-63%
A-	92-90%	B-	82-80%	C-	72-80%	D-	62-60%

Scores are rounded to the nearest whole point: 89.4 rounds down to 89 (B+) while 89.5 rounds up to 90 (A-). The UF grading policy details how GPA is computed.

OTHER IMPORTANT DETAILS

Academic Integrity
UF students pledge to abide by an honor code that prohibits academic dishonesty such as fabrication, plagiarism and cheating. You have an affirmative obligation to understand what constitutes academic dishonesty. You also must report to appropriate personnel any condition that facilitates academic misconduct. If you have any questions or concerns, please contact me.

When I discover cheating, my default policy is to fail all involved for the entire course and report the details to the Dean of Students Office.

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. 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 this link. Summaries of course evaluation results are available to students.

Students with Disabilities
Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565) by providing appropriate documentation. Once registered, students will receive an accommodation letter, which must be presented to me when requesting accommodation. Such requests should be made as soon as possible – preferably at the start of the semester.

Health and Wellness

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on campus by encouraging everyone to look out for one another and to reach out for help if a person is in need.

If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A crisis counselor is available, including nights and weekends, by calling 352-392-1575.

The U Matter, We Care team can help connect students to many other helping resources including, but not limited to, victim advocates, housing staff, and the Counseling and Wellness Center. Asking for help is a sign of strength.

In case of emergency, call 911.

Academic Resources

- E-learning technical support: 352-392-4357 (select option 2) or e-mail to Learningsupport@ufl.edu or reach the website.
- For career advice and planning, or even help selecting a major or minor, contact the Career Resource Center in the Reitz Union, 392-1601.
- For help in finding resources, ask a UF librarian through Library Support.
- General study skills and tutoring available from the Teaching Center, Broward Hall, 392-2010 or 392-6420.