Associate Professor Norm Lewis, Ph.D.

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Office hours: Periods 4-5 (10:40a to 12:35p) Mondays & periods 8-9 (3p to 5p) Tuesdays
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About me: See my website or follow me (@bikeprof) on Twitter

"Office hours" are times I dedicate to being in the office (unless called away by my bosses) and are first-come, first-served. Or, make an appointment. Or, drop in if the door is open.

ABOUT THE COURSE

Course Description
This course equips you to acquire and analyze data using spreadsheets and databases to shape everyday journalism.

Course Purpose
The day is coming when "data journalism" will be redundant. Once upon a time, reporters could rely mostly on interviews and anecdotes. But today's digital-savvy audiences expect better evidence. They demand data to know whether the community is safe or what colors are in fashion. Thus, employers now expect journalists to find and use data as a matter of routine. So the purpose of this course is to enable you to be a journalist proficient in data.

Course Outcomes
By the end of the semester, students should be able to:
- Find data to answer questions, test assertions and monitor those in power.
- Find stories in data by detecting patterns and discovering relationships.
- Evaluate the reliability of data sources and methods.
- Acquire data through public sources and by scraping websites and PDFs.
- Clean messy data so it can be categorized and analyzed accurately.
- Analyze data to discern meaningful patterns from random noise.
- Write SQL queries to sort and filter data, and to join databases.
- Competently use tools like Excel, Access, SQLite, Open Refine and Tabula.
- Publish data stories for both deadline and project stories.

Prerequisites and Related Courses
Prerequisites: None, although having taken JOU 3100, reporting, will help you in the reporting and writing. No experience in data or spreadsheets is presumed.

Successor course: This is part 1 in a two-course sequence on data analysis and presentation. Part 2 is a course I plan to create for spring 2017 in data visualization and mapping.

Related courses: For programming, Professor Mindy McAdams offers a two-course sequence in coding: front-end and back-end web apps.
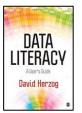
REQUIRED MATERIALS

Required Equipment

Each week, bring a laptop. Either Mac or Windows is OK. If you don't have a laptop, borrow a friend's, or check with campus computing or the UF libraries or any source that can provide a loaner. If that's doesn't work, let me know right away.

~~Required~~ Highly Recommended Textbook

"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 no longer required. But buy it anyway. You'll be glad you did.

The Best Thing You Can Do For Your Career …

… is join IRE (Investigative Reporters and Editors), which is also the umbrella for the national organization for data journalists known as NICAR, or the National Institute for Computer-Assisted Reporting. As a student, you get a one-year membership for only $25 – and can keep that price for three years after graduation. That price gets you access to members-only tip sheets, story ideas and "how we did that" explainers. Membership allows you to join email lists so you can ask professionals to help you solve problems. And it gets you a free one-year license for the full versions of software worth thousands of dollars. Pretty neat, eh? So join!

Other Resources

If you would like to improve your data journalism skills on your own, consider:
- "Computer-Assisted Reporting: A Practical Guide (Fourth Edition)" by Brant Houston. Publisher: Routledge, 2015.
- "Numbers in the Newsroom: Using Math and Statistics in News" by Sarah Cohen. Publisher: IRE, 2014.
- "Naked Statistics: Stripping the Dread from the Data" by Charles Wheelan. Publisher: W.W. Norton, 2013.
- "The Art of Access: Strategies for Acquiring Public Records" by David Cuillier and Charles N. Davis. Publisher: CQ Press, 2011.

ASSIGNMENTS AND GRADING

Tentative Class Schedule (subject to change)

1	Jan. 6	Thinking Data	How to develop a data frame of mind
2	Jan. 13	Excel Basics	Importing, formulas, functions, sorting, filtering
3	Jan. 20	Excel Tables	Pivot tables
4	Jan. 27	Excel Functions	String functions to join and parse data
5	Feb. 3	Excel Practice	Reinforcing what we've learned
6	Feb. 10	Cleaning	Using Excel and Open Refine to clean messy data
7	Feb. 17	Scraping	Parsing data from PDFs and websites (without programming)
8	Feb. 24	Midterm	
	March 2	Spring break	
9	March 9	No class; NICAR	
10	March 16	SQL Basics	Basics in navigating databases and writing SQL with Access
11	March 23	SQL Aggregate	Using SQL aggregate functions in Access
12	March 30	SQL Joins	The real power of databases comes in combining data
13	April 6	SQLite	Reinforcing SQL on the free database tool SQLite
14	April 13	Data analysis	Basic data analysis using the free tool PSPP
15	April 20	Review	Review for the final exam

The final exam is scheduled by UF for 12:30 to 2:30 p.m. Monday, April 25.

Grade Allocation

Homework 30%
Midterm exam 10%
Final exam 15%
Published stories, collectively 45%

Homework

You'll be given weekly assignments to reinforce the skills learned in class. No credit will be given for late work. However, you get 5 bonus points for turning work in 24 hours early. The two low scores will be dropped.

Midterm Exam

The midterm will cover the first half of class. If you miss for any reason, a makeup exam is possible only if (a) the absence is covered by UF policy, (b) you call me at least 30 minutes before class begins, and (c) you promptly provide written documentation for the absence.

Final Exam

The final is cumulative. If you miss for any reason, a makeup exam is possible only if (a) the absence is covered by UF policy, (b) you call me at least 30 minutes before class begins, and (c) you promptly provide written documentation for the absence.

The final exam is scheduled by UF for 12:30 to 2:30 p.m. Monday, April 25.

Published Stories
Journalism is best learned through practice. Therefore, a core requirement of the class will be publishing stories involving data journalism.

However, the exact details of what kinds of stories, or how many, or for what publication, will be determined once the semester begins. That's because we may be working with Health News Florida on health stories for the web and for radio. Once details have been worked out, I'll let you know more.

In addition, you will choose whether to devote all of your time to shorter, faster stories, or whether you want to create a larger project that could show off your data journalism chops to a prospective employer. Of course, a larger project would be worth more to the grade than a smaller story. I will need to know your preference by the midterm, but you won't have to do a larger project unless you want to.

In general, grading for these stories is based on three criteria:
1. **Accuracy**. Like any journalism, data stories must be accurate. Any factual inaccuracy is an automatic 50-point deduction.
2. **Clarity**. Clear, precise and concise writing matters. If the syntax is garbled or hard to comprehend, the audience will stop trying and move on.
3. **Engagement**. If the story is unlikely to be shared via social media, it's not worth doing. Skip the boring stuff. Write about stuff people care about.

Note these criteria do not include AP style. Readers don't care much whether Jan. should be spelled out or alright should be two words so long as they can understand the writing.

Readers *do* care about grammar and spelling. Research has shown the reader doubts the accuracy of a story with spelling errors or glaring grammar mistakes. So stories with spelling and grammar errors will lose clarity points.

But above all, what readers care most is whether the story is accurate, clear and engaging.
- Bad: Story with perfect AP style that's nevertheless boring or unclear.
- Good: Story that's accurate, clear and engaging, despite a few minor style errors.

Keep your eye on the prize. Focus on accuracy, clarity and engagement.

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.

MORE 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 feedback on the quality of instruction in this course by completing online evaluations. You will be notified by email when the evaluations are open, typically in the last two or three weeks of the semester. Summary results are available to you and the public.

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 in the first two weeks of the semester.

Help With Coping

The UF Counseling and Wellness Center is a terrific, free resource for any student who could use help managing stress or coping with life. The center, at 3190 Radio Road on campus, is open for appointments and emergency walk-ins from 8 a.m. to 5 p.m. Monday through Friday. To make an appointment or receive after-hours assistance, call 352-392-1575.

The UF Police can be reached at 392-1111 or, in an emergency, by dialing 911.