JOU4930 Data Literacy
Spring 2017 / Section 1G51 / Periods 4-5 Thursdays, Weimer 1094 / 1 credit

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Office hours: 12:45 to 2:45 p.m. (periods 6-7) Wednesday and Thursday
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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) and are first-come, first-served. Or, make an appointment. Or, drop in if the door is open.

ABOUT THE COURSE

Course Description
The purpose of this course is to ground you in numeracy so that you can correctly interpret and communicate numbers as a media professional. This is not a math course. Rather, it is focused on acquiring a literacy about data so that you are neither fooled by number abuse nor miscommunicate numbers to an audience. Although numeracy concepts apply to any major, the focus on this course is on situations commonly faced by communication professionals. The course has no pre-requisite and is open to any major.

Course Structure
This is a "flipped" course: Your homework is to watch instructional videos online and come to class to do practice problems. Each week's online module averages about 40 minutes of videos plus a practice quiz. The class meets for two periods to ensure sufficient time for practice problems and to discussion before taking a graded quiz.

Objectives
By the end of the course, you should be able to:
- Communicate numbers and basic statistics to an audience.
- Appraise the validity of statements employing numbers.
- Critique and summarize public opinion surveys.
- Distinguish between random events and meaningful patterns.
- Evaluate assertions about causation, evidence, theory and risk.
- Interpret tables, charts and data visualizations.
- Simplify and contextualize large or complicated numbers.
- Identify cognitive biases that shape interpretation of numbers.
- Detect and avoid common forms of number abuse.
- Use a spreadsheet to calculate, sort, filter and pivot numbers.

Required Textbook
"Damned Lies and Statistics," updated edition, by Joel Best. University of California Press, 2012. ISBN: 978-0520274709 (links to Amazon and Barnes & Noble)

Required Laptop
For the spreadsheet lessons on April 5 and 12, bring a laptop of any type (Mac, Windows, Unix, Chromebook, etc.) to class. We will use Google Sheets, available from any web browser on any computer.

Calculator Encouraged
You may use a calculator in class for quizzes and tests. It must be a dedicated calculator (no phones allowed) that cannot be programmed (so that graphing calculator from high school calculus is forbidden). Bottom line: If the calculator display shows only one row of numbers, it can be used for quizzes and tests.

ASSIGNMENTS AND GRADING

Tentative Schedule

Class	Date	Theme	Key Topics
1	January 4	Introduction	Gaining numerical confidence
2	January 11	Evaluating Data	Evidence, proof, theory, hypothesis, limitations
3	January 18	Average	Correctly using mean, median and mode
4	January 25	Percent	Portion, change, points, percentile, quartile
5	February 1	Simplify	Spatial comparisons, per capita, rates, ratios
6	February 8	Polling	Sampling error, survey techniques, election polling
7	February 15	Probability & Risk	Relative risk, regression to the mean, gambler's fallacy
8	February 22	Midterm	
9	March 1	Number Biases	Relativity, price, anchoring, availability
	March 8	(spring break)	
10	March 15	Communicating Data	Communicating numbers in word and speech
11	March 22	Correlation	Causation, measurement scales, variable types
12	March 29	Visuals	Interpreting tables and charts, discerning error
13	April 5	Spreadsheet 1	Cell formats, formulas, functions, sort
14	April 12	Spreadsheet 2	Filter, pivot table, importing, exporting, sharing
15	April 19	Discernment	Normalization, comparisons, data skepticism
	April 27 3-5p	Final Exam	

Grade Allocation (see below for details)
Quizzes (best 13; low score drops) 45%
Midterm 25%
Final (cumulative) 30%

Quizzes (45%)
Quizzes have 10 questions worth 10 points each. Select the *best* answer (not just *a right* answer). Of the 14 quizzes, the lowest score will drop; the 13 best will count.

Online Quiz (1). One quiz is on the assigned textbook, "Damned Lies and Statistics." It will be available online through Canvas until midnight Tuesday, Jan. 17. It is a timed quiz with 10 multiple-choice questions randomly assigned from a question bank.

In-Class Quizzes (13). On-paper quizzes will be given each week in class, starting Jan. 11, except for the Feb. 22 midterm. These quizzes presume you have watched the instructional videos before class. Not everything in the videos will be discussed in class. And the quizzes will draw from the videos and not just the practice problems we will do in class. Quizzes will be reviewed the following week in class so you can ask about anything that was unclear. I will then collect and keep the quizzes.

Midterm (25%)
The midterm will be about 40 questions worth 2.5 points each (100 points total). Questions will be in the style of the quizzes. You are welcome to review quizzes during office hours if you wish. However, I will write the questions not from the quizzes but from reviewing the videos. Therefore, the best study strategy is to re-watch the videos.

Final Exam (30%)
The final exam will be like the midterm, only with about 50 questions worth 2 points each (100 points total). It will be cumulative. No laptop will be required.

The final exam time was scheduled by the University of Florida. If you have more than two exams that day, UF policy determines which one is to be rescheduled. Please let me know early in the semester if that situation applies to you. Otherwise, the final exam cannot be rescheduled to accommodate personal schedules or family vacations.

Attendance
Attendance is expected. Course requirements for attendance, make-up exams, assignments and other work are consistent with UF policy. One weekly quiz or assignment is dropped to accommodate conflicts in your schedule. For absences covered by UF policy, such as illness, you are responsible to alert the professor before class and provide documentation.

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-	72-70%	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 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.

Please note that evaluations serve two purposes: They (1) help my boss evaluate my performance and (2) enable me to improve my teaching and this course for future students. So what you have to say really does matter.

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 – so that I can adjust to the accommodation and therefore assist you in your learning.

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 nighttime and weekend crisis counselor is available 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.
- Have a complaint? See the UF Complaints Policy for links and directions.