

MMC 2450 Data Literacy for Communicators

Spring 2019 | Class 18312 | Periods 4-5 Fridays, Weimer 2056 | 1 credit



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Office hours: Tuesdays 10 am to noon or by appointment

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“Office hours” are times dedicated to being in the office (unless called away) and are first-come, first-served. If those times are already busy, let’s make an appointment.

ABOUT THE COURSE

Course Description

This course grounds you in numeracy so you can correctly interpret and communicate numbers as a media professional. This is not a math course. Rather, it enables you to become literate about data so that you avoid common mistakes made with numbers. 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 discussion before taking a graded quiz each week.

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.
- Use a spreadsheet to calculate, filter and sort 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, 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. All you need is a Google account, which you have if you have ever used Gmail.

Calculator Encouraged

You may use a calculator in class for quizzes and tests. However, it must be a dedicated calculator; no phones allowed. A \$5 solar calculator works well for this course.

ASSIGNMENTS AND GRADING

Tentative Schedule

	Date	Theme	Key Topics	Homework	Assessment
1	Jan. 11	Introduction	Gaining numerical confidence		
2	Jan. 18	Evaluating Data	Evidence, proof, theory, hypothesis, limitations	Watch online videos	Q1 in-class
	Jan. 22	Textbook quiz	10 random questions	Assigned text	Q2 online
3	Jan. 25	Average	Correctly using mean, median and mode	Watch online videos; read assigned text	Q3 in-class
4	Feb. 1	Percent	Portion, change, points, percentile, quartile	Watch online videos	Q4 in-class
5	Feb. 8	Simplify	Spatial comparisons, per capita, rates, ratios	Watch online videos	Q5 in-class
6	Feb. 15	Polling	Sampling error, survey techniques, election polling	Watch online videos	Q6 in-class
7	Feb. 22	Probability & Risk	Relative risk, regression to the mean, gambler's fallacy	Watch online videos	Q7 in-class
No Class-Spring Break					
8	Mar. 1	Exam 1	Everything so far in class; format just like quizzes	Re-watch videos	Exam
9	Mar. 15	Number Biases	Relativity, price, anchoring, availability	Watch online videos	Q8 in-class
10	Mar. 22	Correlation	Causation, measurement scales, variable types	Watch online videos	Q9 in-class
11	Mar. 29	Visuals	Interpreting tables and charts, discerning error	Watch online videos	Q10 in-class
12	Apr. 5	Sheets 1	Formula, function, averages, percent, pct change, sort	Read Sheets how-to page	Q11 in-class
13	Apr. 12	Sheets 2	Nested sort, rate, filter, calculate on filtered data	None	Q12 in-class
14	Apr. 19	Review		Re-watch all videos	
	May. 2	Final Exam at date and time set by UF 10:00 AM to 12:00 PM in classroom			

Grade Allocation (see below for details)

Quizzes (low score drops)	45%
Exam 1	25%
Exam 2 (cumulative)	30%

Quizzes (45%)

Quizzes have 10 questions worth 10 points each. Select the *best* answer (not just a *right* answer). The lowest score of the semester will drop.

Book. One quiz is on the assigned textbook, “Damned Lies and Statistics.” (Read the entire book; it’s not long.) The quiz will be online through Canvas for the first two weeks of the semester, or until 11:59 p.m. Tuesday, Jan 22nd. It is a timed, 15-minute quiz with 10 multiple-choice questions drawn randomly from a question bank.

In-Class. Quizzes will be given weekly in class, starting week 2, except for exams. These quizzes presume you have watched the instructional videos before class. Not everything in the videos will be discussed in class. Quizzes will draw from the videos and not just practice problems done in class. They are multiple-choice quizzes until the Sheets classes.

Student Success Hint: Students who skip the online videos and just come to class tend to get lower grades than those who prepare. Students who watch the videos while texting and scrolling Facebook tend not to do as well, either. Focus = better grade.

Exam 1 (25%)

The midterm will be 50 questions worth 2 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.

Exam 2 (30%)

Exam 2 will be like Exam 1, with 50 questions worth 2 points each, but will be cumulative. It will have 2 parts.

Part 1 will be 46 multiple-choice questions. Once you hand it in, you will be given Part 2, 4 questions involving Google Sheets. You will be able to use your laptop and notes.

If you have more than two exams on 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.

Attendance

Attendance is expected. Course requirements for attendance, make-up exams, assignments and other work are consistent with UF [policy](#).

For absences covered by UF policy, such as illness, a makeup is allowed if the absence is (a) covered by UF policy, and (b) you notify the instructor at least 30 minutes *before* class and *promptly* (within a couple of days) provide documentation if requested. You must complete the makeup quiz or exam before taking the next scheduled one.

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.