

# MMC 2450 Data Literacy for Communicators

Spring 2020 | Class 17720, Section 3G10 | 1 credit



**Instructor: Jennifer Braddock, Ph.D.**

E-mail: [jbraddock@ufl.edu](mailto:jbraddock@ufl.edu)

GroupMe: [https://groupme.com/join\\_group/56489501/dbRDP6k1](https://groupme.com/join_group/56489501/dbRDP6k1)

Office Hours: By Appointment, via Zoom

## 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 other than sophomore standing. It is open to any major.

### Course Structure

This is a “flipped” course. Generally, your homework is to watch instructional videos online and come to live meetings to do practice problems and take quizzes. Each week’s online module averages about 40 minutes of videos plus a practice quiz. The class “meets” via Zoom each week with about half of the meetings offered live while the other half are pre-recorded and can be watched when you’re ready. Attendance is required for THREE (3) of the live Zoom meetings this term.

Again, all Zoom meeting will be recorded but you cannot ask questions live if you don’t attend the meeting. Live meetings will be scheduled for a variety of times in an effort to provide all students the opportunity to attend their required 3.

### Objectives

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

- Communicate numerical information correctly to a general 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](#))

### Calculator Allowed

You may use a calculator for quizzes and tests. However, it must be a dedicated calculator. *No phones are allowed.* A \$5 solar calculator works well for this course.

### Computer Required

You will need a computer each week to take quizzes and exams. Any type of computer is OK: Mac, Windows, or Chromebook. Each quiz or exam requires the LockDown browser, which you will need to load prior to the first quiz. Each quiz is protected by a password the instructor will provide during the live meetings. Do not share the password with students who have not attended the live meeting/watched the live meeting recording. Doing so is considered cheating.

## ASSIGNMENTS AND GRADING

### Tentative Schedule

	Date	Theme	Key Topics	Homework	Assessment
1	Jan. 6-10	Introduction and Syllabus Review	Gaining numerical confidence	After this class, review PPT	Practice Quiz
2	Jan. 13-17	Evaluating Data	Evidence, proof, theory, hypothesis, limitations	Watch online videos	Q1 Evaluate
	*Jan. 22	Textbook quiz	10 random questions from the assigned textbook	Assigned text, "Damned Lies"	Q2 Book
3	Jan. 21-24	Average	Correctly using mean, median and mode	Watch online videos	Q3 Average
4	Jan. 27-31	Percent	Portion, change, points, percentile, quartile	Watch online videos	Q4 Percent
5	Feb. 3-7	Simplify	Spatial comparisons, per capita, rates, ratios	Watch online videos	Q5 Simplify
6	Feb. 10-14	Polling	Sampling error, survey techniques, election polling	Watch online videos	Q6 Polling
7	Feb. 17-21	Probability & Risk	Relative risk, regression to the mean, gambler's fallacy	Watch online videos	Q7 Probability
8	Feb. 24-28	Midterm	Everything so far in class; format just like quizzes	Re-watch videos	Midterm
	Feb. 29-March 8	Spring break; no class			
9	March 9-13	Number Biases	Relativity, price, anchoring, availability	Watch online videos	Q8 Biases
10	March 16-20	Correlation	Causation, measurement scales, variable types	Watch online videos	Q9 Correlation
11	March 23-27	Visuals	Interpreting tables and charts, discerning error	Watch online videos	Q10 Visuals
12	March 30-April 3	Discernment	Putting it all together: how to evaluate numerical claims	Watch online videos	Q11 Discern
13	April 6-10	Sheets	Formula, function, averages, percent, percent change, sort	None	Q12 Sheets
14	April 13-17	Review	Practice questions in class to cover the semester	Re-watch videos	Q13 Review

15	April 22	Exam 2	Entire semester (cumulative); format like quizzes, midterm	Re-watch videos	
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### Grade Allocation Table

Assessment	Points per item	Number of questions in each quiz or exam	Number of quizzes or exams counted in semester grade	Total points in category for the semester
Quizzes	1	10	10	100
Midterm	1	50	1	50
Exam 2	1	50	1	50
Attendance (3)	5			15
<i>Total</i>				<i>215</i>

### For All Quizzes and Exams

- You will have from Thursday at Noon to Friday at Noon each week to complete quizzes. (For exam dates/times, see Canvas.)
- Each correct answer for a quiz or an exam is worth 1 point.
- All questions are multiple-choice.
- For each question, select the *best* answer (not just a “right” answer).
- Notes are not permitted for quizzes or exams.
- A dedicated calculator (not a phone) is encouraged for quizzes and exams.
- Canvas draws quiz and exam questions randomly from question banks.
- All quizzes and exams are cumulative, except for the textbook.
- Textbook questions appear only on the book quiz and on no other quiz or exam.
- Exams are drawn from the video lessons plus the PowerPoint to be discussed in the live class meetings. That PowerPoint will be posted to Canvas after the first class.
- Quizzes will be 70% from that week’s lesson and 30% cumulative.
- You will have an average of 2 minutes on each question for quizzes and exams.
- Canvas only gives a total score for each quiz and exam. To discover which questions you got right or wrong, set up a time to speak with the instructor via Zoom.  
**Questions/answers will not be discussed via email to protect course materials.**

### Quizzes (100 points)

Each quiz has 10 questions worth 1 point each. During the semester, you will have 13 quizzes.

- *Book Quiz.* This is on “Damned Lies and Statistics.” (Read the entire book; it’s not long.) The quiz will be on Canvas until 11:59 p.m. Wednesday, Jan. 22.
- *All other quizzes.* Quizzes will be posted weekly Thursdays at noon starting week 2, except for exams. These quizzes presume you have watched the module videos. Not everything in the videos will be discussed in live class meetings. Quiz questions are drawn from the videos.

The 10 highest quiz scores out of 13 count toward the semester grade.

### Midterm (50 points)

The midterm has 50 questions worth 1 point each. Questions will be in the style of the quizzes. I write the questions not from the quizzes but from reviewing the videos and the first-week PowerPoint. Therefore, the best study strategy is to re-watch the videos.

**Exam 2 (50 points)**

Like the midterm, the final has 50 questions worth 1 point each. Questions cover the entire course, including all online videos and the first-week PowerPoint.

**About LockDown Browser**

This course requires the use of LockDown Browser by Respondus for quizzes and exams. This browser blocks access to the rest of Canvas (so no peeking at the online videos), or to any other site on the Internet, or any other application on your computer. It prevents anyone from using notes or Googling answers, and thus helps ensure a level playing field.

You can learn more about the LockDown Browser by watching this [video](#). (Note: We will use only the LockDown Browser, not the Respondus Monitoring webcam feature.)

Before the first class, download the LockDown Browser to your laptop from this [website](#). During the first week you should test the installation with the practice quiz. You should

1. Start the LockDown Browser
2. Log onto Canvas
3. Navigate to the quiz

Note access to each quiz and exam can be made *only* through LockDown Browser. If you try to access a quiz or exam through a conventional browser such as Chrome, Firefox, or Safari, Canvas will generate an error message and forbid access.

**Attendance**

This is an online course that utilizes both recorded videos and live class meetings. Course requirements for attendance, make-up exams, assignments and other work are consistent with UF [policy](#).

Students are REQUIRED to attend 3 of the live meetings this term. About half of these meetings will be pre-recorded and the other half will be live. Please make every attempt to attend at least three (3) of the live meetings.

**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 are bound by 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 work submitted for credit by students at the University of Florida, 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, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with 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. 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/>.

### Students with Disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting [disability.ufl.edu/students/get-started](http://disability.ufl.edu/students/get-started). It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in 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](mailto: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](mailto: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.