

MMC 2450 Data Literacy for Communicators

Spring 2021 | Class 24863, Section DT01 | Online 100% | 1 credit



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with Associate Professor Norman P. Lewis, Ph.D. (lead instructor)

Office: Via Zoom

Office hours: Vary each week, by Canvas appointment

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Office hours are available via Zoom for reservable sessions via Canvas (Calendar / Agenda / Find Appointment). If you have conflicts during those time slots, contact me and we'll find a mutually agreeable time to review quiz or exam answers, or clear up any ambiguities.

ABOUT THE COURSE

Course Description

This course grounds you in numeracy so you can correctly interpret and communicate numbers, and thus enter the workplace with confidence that you can think logically about numbers. The only pre-requisite is sophomore standing. It is open to any major.

Course Structure

This course is 100 percent online, through Canvas. All instruction is in videos, with no outside readings or textbook. All assessments are multiple-choice questions for quizzes and two exams. All are proctored with Honorlock. I watch them to detect cheating.

This course is fully asynchronous. It has deadlines so you can pace yourself and keep up with the material. However, you can work ahead or even complete the course in a few days. Because of that work-ahead feature, deadlines are firm. No extensions are allowed unless extenuating circumstances arise in accordance with UF policies.

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.
- Apply average and percentage to everyday life.
- Determine when numbers require normalization.
- 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

None.

Materials and Supplies Fee

None.

ASSIGNMENTS AND GRADING**Firm Deadlines (All modules can be completed ahead of deadline*)**

	Deadline	Theme	Key Topics	Assessment
1	11:59 pm Sat, Jan. 16	Introduction	How data literacy differs from math; three course principles	(none)
2	11:59 pm Sat, Jan. 23	Data Logic	Distinguish among terms such as error and theory; identify factors affecting comparisons	Q1 Data Logic
3	11:59 pm Sat, Jan. 30	Average	Calculate and apply mean, median, and mode while avoiding common errors	Q2 Average
4	11:59 pm Sat, Feb. 6	Percent	Calculate and apply percentages and percentiles while avoiding common errors	Q3 Percent
5	11:59 pm Sat, Feb. 13	Simplify	Simplify and contextualize large numbers in terms of individuals, time, area, and volume	Q4 Simplify
6	11:59 pm Sat, Feb. 20	Surveys	How to interpret surveys and polls, identify ways results can differ, and detect errors	Q5 Surveys
7	11:59 pm Sat, Feb. 27	Sheets	Use Google Sheets to calculate average, percentage, total, and rate, and sort and filter	Q6 Sheets
8	11:59 pm Sat, March 6	Midterm Review	Review course so far Take midterm: 50 random questions	Midterm
9	11:59 pm Sat, March 13	Probability	Calculate three types of probability to avoid common misinterpretations; two types of risk	Q7 Probability
10	11:59 pm Sat, March 20	Number Biases	How anchoring bias, availability heuristic, price bias, and relativity trap skew numbers	Q8 Number Biases
11	11:59 pm Sat, March 27	Correlation	Discern between causation and correlation; four types of variables; experiment types	Q9 Correlation
12	11:59 pm Sat, April 3	Visuals	Read tables, charts, and maps to avoid abuse and misinterpretations; hurricane maps	Q10 Visuals
13	11:59 pm Sat, April 10	Number Abuse	Skepticism vs. cynicism; dubious data vs. empiricism; cherry-picking; interpreting rates	Q11 Number Abuse
14	11:59 pm Sat, April 17	Writing	Best ways to write about numbers, including simplification and rounding	Q12 Writing
15	11:59 pm Sat, April 24	Final Review	Review second half of course (revisit Midterm review on your own); take a cumulative quiz	Q13 Review
16	11:59 pm Fri, April 30*	Final	Final: 50 random questions; cumulative	Final Exam

* You can work ahead and complete the course in a few days, so deadlines are firm. Deadlines are Saturday night except for the final, which is the last day allowed by UF.

Grading Categories

Category	Points	Grade Pct
Weekly quizzes (best 10 out of 13 count)	100	50%
Midterm exam	50	25%
Final exam	50	25%
<i>Total</i>	<i>200</i>	<i>100%</i>

No extra credit points exist, but you do have two ways to boost your quiz scores (below).

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.

About Quizzes and Exams

- Cumulative:** Quizzes and exams are cumulative.
 - After the first quiz, 7 questions are from that module and 3 are cumulative.
 - The midterm covers the first half. The final exam covers the entire course.
- Points:** Each correct answer, whether in a quiz or exam, is worth 1 point.
 - Each quiz has 10 questions.
 - Each exam has 50 questions.
- Quiz Allowances:** In lieu of extra credit, two options allow you to boost your grade.
 - Of the 13 quizzes, the low 3 scores drop and the best 10 count.
 - For the last (13th) quiz, you get 2 attempts; the better score counts.
- Random:** Quizzes and exams are drawn at random from question banks.
 - Quiz questions accumulate, so they may repeat in future quizzes.
 - Each exam is drawn from a fresh question bank, not from quizzes.
- Time:** You have an average of 2.5 minutes per question for quizzes and exams.
 - 25 minutes for each quiz (10 questions X 2.5 = 25 minutes).
 - For the last (13th) quiz, with 2 attempts, 50 minutes are allowed.
 - 125 minutes for each exam (50 questions X 2.5 = 125 minutes).
- Multiple-choice:** Each question has four answer options.
 - For each question, select the *best* (not just a “right”) answer.
 - No answer option is “all of the above” or “none of the above.”

Quiz and Exam Honesty Requirements

- Allowed:** A computer to take the exam, with only the quiz or exam visible or audible, in a quiet room in which you are alone. A dedicated **calculator (not a phone)**. A single sheet of blank-on-both-sides scratch paper. A pen or pencil.
- Not allowed:** Anything else, such as humans, notes, course videos, other web pages or websites, phone, tablet, programmable calculator, headphones, earbuds, etc.

About Honorlock

All quizzes and exams use Honorlock, a proctoring service. It works only with the [Chrome](#) browser. The quiz in the Introduction module uses Honorlock so you can become familiar with it. If you have not used Honorlock before, it will prompt you to install a Chrome extension. For more about Honorlock, the UF business school has a helpful [guide](#).

No Extensions

Because everything in the course can be done early, allowances for missing deadlines are unneeded. All schedule conflicts such as religious observances or sporting events can be resolved by taking the quiz or exam early. The only exception is for unforeseen and chronic events covered by UF policy.

Instead, do the first two modules in the first week. They were made to be combined. That way, you'll start out a week ahead – which means a little less stress later when life throws a curveball at you on deadline.

Three Best Ways to Help Your Grade

1. For each module, (a) watch the videos one at a time, without interruption, (b) do the practice quiz, and then (c) watch each video a second time.
2. Work ahead. Complete the first two modules in the first week. (They were made to be combined.) That way, you'll have a little less stress in life.
3. Contact me right away, and often, with any questions. We can review quizzes by Zoom so that you won't miss a similar question twice.

Another Success Strategy

Given that the course is cumulative, and memories are fleeting, one strategy is to complete the course as quickly as possible at the start of the semester. That has two benefits. First, it lets you take each quiz and the two exams while concepts are fresh. Second, completing this course early lets you devote more time and attention to other courses.

Online Assistance

If you encounter technology difficulties, contact the UF Computing Help Desk [website](#), or phone 24/7 at 352-392-4357, or email helpdesk@ufl.edu.

FAQs

Q. Can I really do the course all at once?

A. Yes. Doing so might improve your grade. If you complete the course in a tight time frame, you're more likely to remember earlier material than if you look at it only once a week.

Q. How long does it take to do each module?

A. About 40 minutes of instruction followed by a 25-minute quiz or a two-hour exam. Many find it useful to watch the videos twice before taking the quiz or exam.

Q. Isn't there anything else, like Canvas discussion posts or a written report?

A. No. Only 13 quizzes and 2 exams.

Q. What if I have a (insert reason here) on Saturday? Can I get an extension?

A. No. Because the course can be completed in the first week, deadlines are firm.

Q. But students are expected to procrastinate and, if anything goes wrong on deadline, plead for leniency. That's OK, right?

A. The *due* date does not have to be the *do* date. The entire course is available from the first day of class so that you can work ahead. Be ahead, and you'll get ahead.

Q. What if I have a technical glitch, like Wi-Fi going out, that's not my fault?

A. Ah, but the solution is within your power. If Wi-Fi goes out, your phone can serve as a hotspot. If you have not done that before, watch this [video](#) now, so that you're prepared.

Q. If I bomb the midterm, can I do something for extra credit?

A. No extra credit is possible in this course because no options fit the teaching purpose of this 1-credit class. Instead, the low 3 quiz scores drop, and you get 2 tries on the last quiz.

Q. That sounds scary. How do I prepare for the exams?

A. The quizzes prepare you for the exams. Each exam is exactly like the quizzes, only with a fresh batch of questions. If you do well on the quizzes, you likely will do well on the exams. If you have been struggling with the quizzes, you may wish to change study habits. Also, you can ask me for clarification about anything that is confusing.

Q. Can I use a calculator during quizzes and exams?

A. Yes: A dedicated solar calculator (not a phone) such as a TI-30 is sufficient. Only a very basic calculator is needed to perform the simple calculations required.

Q. If my calculator is missing, can I use my phone?

A. No. Use of a phone or other electronic device during a quiz or exam constitutes academic misconduct.

Q. Can I use note paper?

A. Yes, if blank on both sides. Show both sides to the video camera when Honorlock is recording so I will know the paper is blank.

Q. Can we use a cheat sheet or peek at the videos while taking a quiz or exam?

A. No.

Q. Can I consult a friend or family member?

A. No. You should be alone in a quiet room. No other voices are allowed.

Q. When will I know how I did on the quiz or exam?

A. Canvas will record your score immediately.

Q. Canvas won't show me the answers. How do I know what questions I missed?

A. Answers are not shown to preserve the integrity of the assessments. However, I am happy to review any quiz or exam with you over Zoom.

Q. How do I schedule a Zoom time?

A. To claim a private slot during office hours, click on the Calendar button in Canvas and then choose the Find Appointment box. If slots are full, or if you have a conflict during office hours, email me and we'll set up a time that is mutually convenient.

Q. I watched the videos but still got questions wrong. Why?

A. Data show the primary reason is distractions. Having Facebook or messaging going while watching videos impedes learning.

Q. I turned off Facebook and still did bad. What else can I do?

A. If you really want to engage the brain, don't just watch. Take notes. Research shows the physical act of writing improves retention. Call it the "Hamilton" Effect: If you put a pencil to your temple, it connects to your brain.

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.

Violations can result in a failing grade for the course and referral to the dean of students.

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 the [get-started page](#). It is important to share any accommodation letter with me and discuss access needs as early as possible in the semester.

Diversity

The College of Journalism and Communications embraces an intellectual community enriched and enhanced by diversity along several dimensions, including race, ethnicity and national origins, gender and gender identity, sexuality, class, and religion. Each course is

expected to help foster an understanding of the diversity of peoples and cultures and of the significance and impact of mass communications in a global society. To that end:

1. Please let me know if you find any material in the course violates that expectation.
2. Please alert me if you have a name or preferred pronouns that differ from the class roll information, which is my only source of information about you.
3. If you have any concerns involving diversity in this course that you feel uncomfortable discussing with me, please contact Professor Joanna Hernandez, CJC director of inclusion and diversity, at jhernandez@jou.ufl.edu.

Course Evaluations

Please provide 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](#). You will be notified when the evaluation period opens. Students can complete evaluations through the email they receive from GatorEvals, in the Canvas course menu under GatorEvals, or via the [Gatorevals website](#). Summaries of course evaluation results are [publicly available](#).

Health and Wellness

- U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit U Matter, We Care [website](#) to refer or report a concern and a team member will reach out to the student in distress.
- Counseling and Wellness Center: Visit the Counseling and Wellness Center [website](#) or call 352-392-1575 for information on crisis services as well as non-crisis services.
- Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need or visit the Student Health Care Center [website](#).
- University Police Department: Visit UF Police Department [website](#) or call 352-392-1111 (or 911 for emergencies).
- UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville. Visit the UF Health Emergency Room and Trauma Center [website](#).

Academic Resources

- E-learning technical support: Contact the UF Computing Help Desk [website](#), or phone 24/7 at 352-392-4357, or email helpdesk@ufl.edu.
- Career Connections Center: Career assistance and counseling services. Visit the [website](#). Reitz Union Suite 1300, 352-392-1601.
- Library Support: Various ways to receive assistance with respect to using the libraries or finding resources. Visit the [website](#).
- Teaching Center: General study skills and tutoring. Visit the [website](#). Broward Hall, 352-392-2010 or to make an appointment 352-392-6420.
- Online Student Complaints: View the Distance Learning Student Complaint Process [website](#).