

MMC 2450 Data Literacy for Communicators

Fall 2021 | Class 16827, Section 07H3 | Online 100% | 1 credit



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Office hours: Online via Zoom (make appointment in Canvas): Mondays 2:00 to 5:00 pm

In person (open; no appointment): Tuesdays 2:00 to 5:00 pm

In-person office hours are first-come, first-served. To make a Zoom appointment, click the Calendar icon, then Find Appointment. If neither work, contact me and we'll find a time.

ABOUT THE COURSE

Course Description

This numeracy course enables you to enter the workplace confident in your ability to think logically about numbers and correctly communicate them. This is not a math course; it is an *application* course employing simple math. The only pre-requisite is sophomore standing.

Course Structure

This course is fully online, on 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 all videos to monitor compliance.

This course is asynchronous. It has deadlines only so you can pace yourself and keep up with the material. Better yet, you can work ahead or complete the course in a few weeks. Because of that work-ahead feature, deadlines are firm. No extensions are allowed unless unusual and 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 and scrutinize common 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

No textbook

Materials and Supplies Fee

No fees

ASSIGNMENTS AND GRADING**Deadlines are firm because all modules can be completed starting day 1***

| | Deadline | Theme | Key Topics | Assessment |
|----|----------------------------------|-------------------------------|--|-------------------|
| 1 | 11:59 pm Sat, Aug. 28 | Introduction | How data literacy differs from math; three course principles | (none) |
| 2 | 11:59 pm Sat, Sept. 4 | Data Logic | Distinguish among terms such as error and theory; identify factors affecting comparisons | Q1 Data Logic |
| 3 | 11:59 pm Sat, Sept. 11 | Average | Calculate and apply mean, median, and mode while avoiding common errors | Q2 Average |
| 4 | 11:59 pm Sat, Sept. 18 | Percent | Calculate and apply percentages and percentiles while avoiding common errors | Q3 Percent |
| 5 | 11:59 pm Sat, Sept. 25 | Simplify | Simplify and contextualize large numbers in terms of individuals, time, area, and volume | Q4 Simplify |
| 6 | 11:59 pm Sat, Oct. 2 | Surveys | How to interpret surveys and polls, identify ways results can differ, and detect errors | Q5 Surveys |
| 7 | 11:59 pm Sat, Oct. 9 | Sheets | Use Google Sheets to calculate average, percentage, total, and rate, and sort and filter | Q6 Sheets |
| 8 | 11:59 pm Sat, Oct. 16 | Midterm Review & Midterm Exam | Review course so far Take midterm: 50 random questions | Midterm |
| 9 | 11:59 pm Sat, Oct. 23 | Probability | Calculate three types of probability to avoid common misinterpretations; two types of risk | Q7 Probability |
| 10 | 11:59 pm Sat, Oct. 30 | Number Biases | How anchoring bias, availability heuristic, price bias, and relativity trap skew numbers | Q8 Number Biases |
| 11 | 11:59 pm Sat, Nov. 6 | Correlation | Discern between causation and correlation; four types of variables; experiment types | Q9 Correlation |
| 12 | 11:59 pm Sat, Nov. 13 | Visuals | Read tables, charts, and maps to avoid abuse and misinterpretations; hurricane maps | Q10 Visuals |
| 13 | 11:59 pm Sat, Nov. 20 | Number Abuse | Skepticism vs. cynicism; dubious data vs. empiricism; cherry-picking; interpreting rates | Q11 Number Abuse |
| 14 | 11:59 pm Sat, Dec. 4 | Writing | Best ways to write about numbers, including simplification and rounding | Q12 Writing |
| 15 | 11:59 pm Sat, Dec. 11 | Final Review | Review second half of course (revisit Midterm review on your own); take a cumulative quiz | Q13 Review |
| 16 | 11:59 pm Thu, Dec. 16* | Final Exam | Final: 50 random questions; cumulative. (Note that deadline is not a Saturday.) | Final Exam |

* You can work ahead and complete the course in a few weeks, so deadlines are firm. Deadlines are Saturday night (skipping Thanksgiving week) except for the final exam.

Grading Categories

| Category | Points | Grade Pct |
|--|------------|-------------|
| Weekly quizzes (best 10 out of 13 count) | 100 | 50% |
| Midterm exam | 50 | 25% |
| Final exam | 50 | 25% |
| Total | 200 | 100% |

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:** All quizzes and both 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 events that are both unforeseen and chronic, as covered by UF policy.

Instead, complete the first two modules in the first week. They were made to be combined. You'll be a week ahead, which can lessen stress if life throws a curveball on deadline.

My Advice 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. Continue to work ahead to improve memory recall and performance.
3. Contact me right away with any questions. We can review quizzes in person or by Zoom as often as you like so that you won't miss a similar question twice.

My Best Success Advice

Given that the course is cumulative, and memories are fleeting, complete the course early, within the first four to six weeks. Doing so lets you take each quiz and the two exams while concepts are fresh. As a secondary benefit, finishing this course early lets you devote time and attention to other courses when crunch time hits.

Advice from Previous Students

Top students from prior semesters have offered these two pearls of wisdom:

1. Work ahead.
2. Review course material and quiz/exam answers with the professor.

Technical 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 entire course all at once?

A. Yes. Doing so could 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. This is a 1 credit course, which means passing is guaranteed, right?

A. No. Although the material is review for most students, and although I wish everyone to pass the first time, unfortunately some students end up retaking the class. Be assured that I am happy to meet with you to assist your learning before taking the next quiz or exam.

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. To put it another way, the *due* date does not have to be the *do* date.

Q. What if I have a technical glitch, like Wi-Fi going out?

A. 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. If you encounter a technical issue involving Canvas, you can file a ticket with the UF Computing [Help Desk](#).

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. You also have a review quiz and video answers before each exam. In addition, you are welcome to review anything you like with me during office hours.

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 electronic device during a quiz or exam is academic misconduct.

Q. Can I use note paper?

A. Yes, if blank on both sides. Show both sides to the camera at the start of the video.

Q. Can I 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. Honorlock expects you to 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 in person or via Zoom.

Q. How do I schedule office hours?

A. For in-person office hours, no appointments are taken; it's first-come, first-served. For online Zoom meetings, click on the Calendar button in Canvas and then choose the Find Appointment box. Zoom slots are for 20 minutes.

Q. What if I have a conflict during your scheduled office hours?

A. Contact me via email or Canvas and we will set up a time that is mutually agreeable.

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

A. First, avoid distractions; having other apps going while watching videos impedes learning. Second, hand-write notes; research shows the physical act of writing improves retention. Third, let's review the answers together to clear up potential misunderstandings.

Q. I'm not good at math. Why do I have to take this course?

A. This course is not about math, but about *applying* math to everyday communication. In today's data-driven world, no one can avoid numbers. Further, studies show that audiences are unforgiving of numerical mistakes, and become prone to distrust the source.

Q. I prefer face-to-face classes. Why is this one online?

A. This course used to be all or partly in person. But students rightfully complained they saw the in-class material only once and could not review it at home before exams. In 2020, the course was rebuilt to be fully online so students could have all materials available on demand. It also became asynchronous so that students could fit the course into their personal schedules and could work ahead to retain material and improve their grades.

Further, I am here to help you with anything in the course that isn't clear, and to review any quiz and exam answers so you can learn from mistakes.

TL;DR

1. You can work ahead (hint!), so deadlines are firm.
2. No extra credit is possible. Instead, three low quiz scores drop, which covers most illnesses and life events. Also, you have two attempts at Quiz 13, the final review.
3. No quiz or exam answers are shown to preserve academic integrity. However, I am happy to review quizzes and exams in person or by Zoom, as often as you like.

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](#).

In-Class Recording

Because this is an asynchronous, online course, there are no class lectures to record.

All the “lectures” in this course are videos which you can watch as often as you like. They are copyrighted by UF, which means they cannot be copied or shared. Likewise, all quiz and exam questions are protected to preserve academic integrity. They cannot be copied, even for personal use. But as noted earlier, I am happy to review your answers with you in person or online, as often as you like.

Otherwise, here is the official UF statement regarding in-class recording:

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third-party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

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](#).