

MMC6456: Data Visualization and Storytelling

Academic Term: Spring 2026
4 Credit Hours

Instructor

Name: Brittany Hink

Email Address: Brittany.Hink@ufl.edu

Office Phone Number: https://ufl.zoom.us/j/4371556343

Virtual Office Hours: Tuesday 6-7 EST

Course Description and Prerequisites

Course Description: This course aims to teach you the fundamentals of data visualization and storytelling with data. We will spend the first half of the semester introducing you to Tableau, a leading business intelligence and data visualization tool, and teaching you how to build strong visualizations. In the second half of the semester, we will focus on how to deliver your visualizations to different key audiences to impact business decisions. By the end of the course, you will be able to design compelling data visualizations and create impactful narratives to drive business decisions.

Course Prerequisites -N/A

Course Expectations

This course is fully online; you must log in to Canvas with your Gatorlink username and password to access the materials and assignments. The course is organized into modules with due dates. Unless otherwise specified, each module begins on Monday at 12:00 AM ET and ends on Sunday at 11:59 PM ET.

Time Commitment & Student Workload Expectations

Expect to spend 10 to 20 hours per week per course watching or attending lectures, reading, working on assignments and projects, and engaging in discussions.

Expectations for Writing Assignments: Writing Style

To meet the academic rigor and standards of a graduate program, all students must use the Publication Manual of the American Psychological Association (APA) 7th Edition style in their courses when appropriate for the assignment. The APA 7th Edition Manual has a plethora of guidelines that include scholarly writing, publishing principles, elements and format for your papers, writing style and grammar, bias-free language guidelines, mechanics of style, in-text citing references, etc. For additional information on notable changes, see changes between APA 6th Edition and APA 7th Edition.

Attendance Policy

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies. Click here to read the university attendance policies for information on absences, religious holidays,



illness, and the twelve-day rule. Excused absences must be consistent with university policies in the <u>Graduate Catalog</u> and require appropriate documentation.

Late Assignment Policy

Late assignments will not be accepted unless it is a <u>University excused absence</u>, as stated in the attendance policies. *Due to the university grading deadlines, no late work will be accepted for final projects or work due in the final week of class*. Students should contact their instructors before submitting the assignment deadline if potential issues arise concerning submitting the final work.

- 1. Late Assignment Grade Reductions
 - a. 0-24 Hours Late: 10% reduction in grade.
 - b. Over 24 Hours (24 hours and 1 minute) to 7 Calendar Days Late: 20% reduction in grade.
 - c. After the 7th Calendar Day: Work will not be accepted.
- 2. Late Discussions will not be accepted.

Student Guidelines for Course Challenges

A student with questions regarding course content such as assignments, assessments, instructional materials, lectures, meetings, course objectives, course module objectives, or other areas of the course, please adhere to the following guidelines: First, approach the faculty member who is teaching the course to ask for clarifications regarding the course assignments, assessments, materials, lectures, meetings, etc. Use the instructor's contact information to request an appointment where you can address any concerns and/or questions. If, after meeting with the faculty member teaching the course, you are still unclear on the course assignments, assessments, materials, lectures, meetings, etc., then the next step would be to contact online advising (onlineadvising@jou.ufl.edu) for additional guidance.

Accessibility/Students with Disabilities Information

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the <u>Disability Resource Center</u>. It is important for students to share their accommodation letters with their instructors and discuss their access needs as early as possible in the semester.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online. Students can complete evaluations in three ways:

- 1. The email they receive from GatorEvals,
- 2. Their Canvas course menu under GatorEvals, or
- 3. The central portal at https://my-ufl.bluera.com

Guidance on how to provide constructive feedback is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

Course Learning Objectives

Upon successful completion of this course, students will be able to:

- 1. Demonstrate the power of data storytelling (CLO: 1)
- 2. Leverage foundational data analysis methods (CLO: 2)
- 3. Illustrate how cognitive load can impact the effectiveness of a data story (CLO: 3)
- 4. Transform data for usability for deeper analysis (CLO: 4)



- 5. Interpret data visualizations to extract powerful insights (CLO: 5)
- 6. Explore key visualization techniques (CLO: 6)
- 7. Apply the principles of data visualization to create compelling storytelling for stakeholders (CLO: 7)
- 8. Design an interactive dashboard that addresses real-world business questions (CLO: 8)
- 9. Demonstrate audience-specific storytelling (CLO: 9)

Textbooks and Materials

Required Course Textbook(s)

Both Available Online through the University of Florida Library at no cost:

Mittal, M., & Raheja, N. G. (2024). Data Visualization and Storytelling with Tableau. (1st ed.). Taylor & Francis Group

Nussbaumer, K. C. (2015). Storytelling with data: A data visualization guide for business professionals (1st ed.). Wiley ISBN-13: 978-1119002253

Required Software:

Tableau Desktop (free version available for students)

Recommended Textbook(s)

This textbook is recommended in all CJC Online classes to support student expectations for writing style.

American Psychological Association. (2020). *Publication manual of the American Psychological Association: The official guide to APA style* (7th ed.).

- ISBN-13: 978-1433832161
- ISBN-10: 143383216X

An example of a (mock) student paper in APA format is included in your actual course.

Instructional materials for this course consist of only those materials specifically reviewed, selected, and assigned by the instructor(s). The instructor(s) is only responsible for these instructional materials.

University and Course Grading Policies

University Honor Code

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 Conduct Code specifies the number of behaviors that violate this code and the possible sanctions. Click here to read the Conduct Code. If you have any questions or concerns, please consult with the instructor in this class.

Plagiarism

Plagiarism is unacceptable, especially in academic communities. All academic work must be an original work of your own thought, research, or self-expression. Plagiarism includes but is not limited to, prohibited collaboration, consultation, and



submission of academic work that has been purchased or obtained (see the <u>UF Policy: Student Conduct Violation</u>). In addition, self-plagiarism is also unacceptable. Self-plagiarism is defined as recycling or reusing one's own specific words from previously submitted assignments or published texts. Remember that plagiarism is unacceptable in any of your work, including all discussion board posts, journal entries, wikis, and other written and oral presentation assignments. It's important to always cite your sources in your assignments.

Grading Criterion

Your grade will be calculated based on the following:

DIRECTIONS FOR THE INSTRUCTOR:

Edit the blue content examples and enter your course details.

Assignments/Assessments	Weight (%)
Course Orientation: These assignments are required; however, they do not count toward the final	0%
grade.	
Student Introduction	
Course Evaluation	
13 Discussions	10%
Visualization Assignments:	35%
Common Graphs and Charts	
Visuals for Stakeholders	
Interactive Visualizations	
Interactive Dashboard	
Measurement Framework, Design and Storyboarding Assignments	25%
1 Final Presentation	
TOTAL	100%

Grade	Percentage
Α	92.5-100%
A-	89.5-92.4%
B+	86.5-89.4%
В	82.5-86.4%
B-	79.5-82.4%
C+	76.5-79.4%
С	72.5-76.4%
C-	69.5-72.4%
D+	66.5-69.4%
D	62.5-66.4%
D-	59.5-62.4%
E	0 – 59.4%

The only passing grades for graduate students are A, A-, B+, B, B-, C+, and C. Letter grades of C-, D+, D, D- or E are not considered passing at the graduate level. However, the grade points associated with these letter grades are included in grade point average calculations. See the <u>Graduate Catalog</u> and <u>UF graduate school grading policy</u> for more information.



Student Privacy

Federal laws protect your privacy regarding grades earned in courses and on individual assignments. For more information, please see the Notification to Students of FERPA Rights.

Technology Requirements

Software Use

All faculty, staff, and students at the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Software

- Microsoft Office 365.
- <u>UF Apps</u> access UF software applications from any device from any location at any time.
- Adobe Reader
- Zoom

Technical Support

If you have technical difficulties with your course, don't hesitate to contact the UF Computing Help Desk by filling out an online request form or calling 352-392-4357 (HELP).

If your technical difficulties cause you to miss a due date, you must report the problem to the Help Desk and then email your instructor. Include the ticket number you are given from the Help Desk in an email to the instructor to explain the late assignment/quiz/test.

IT Support

For all Technical assistance questions, please get in touch with the UF Computing Help Desk.

Phone: 352-392-HELP (4357) Email: helpdesk@ufl.edu

Communication Policies

Student Expectations

Clear and respectful communication is essential in this course. Students are expected to check their email and the course platform regularly for updates. Questions and concerns should be communicated professionally via email or during office hours. Active participation in discussions—both in-person and online—is encouraged to support collaborative learning.

Announcements

You are responsible for reading all announcements posted in the course each time you log in.

Email



You are responsible for reading all your course emails and responding promptly (within 24 hours).

Instructor Communications

Email Policy

Except for weekends, holidays, and University breaks, the instructor will typically respond to emails within 48 hours. For course-related questions, please post on the Canvas FAQ discussion board. If you have questions of a personal nature, please email me directly.

Assignment Feedback Policy

I will provide feedback/grades on submitted assignments within two weeks of the due date. Some assignments may require a longer review period, which I will communicate to you if necessary.

Course Policies

Video 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 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.

Privacy

If your course includes live synchronous meetings, the class sessions will all be recorded for students in the class to refer to and for enrolled students who cannot attend live. Students who participate with their camera engaged or utilized a profile image agree to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, keep your camera off and do not use a profile image. Likewise, students who unmute during class and participate agree to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. Please see UF's Information Technology policies for additional information.

Challenging Topics



In this course, we may cover subjects that may be sensitive and/or challenging. As in all our courses, we do this not to indoctrinate but to instruct, to prepare you to be the most effective and successful media professional or scholar you can be. We encourage you to understand all concepts presented in class, but we know that what you personally believe is your choice. If you want to discuss anything regarding this, don't hesitate to contact me directly.

Academic and Student Resources

Academic Resources

- E-learning Technical Support: Contact the UF Computing Help Desk at 352-392-4357 (HELP) or via e-mail at helpdesk@ufl.edu.
- <u>Career Connection Center</u>: Career assistance and counseling. Reitz Union, Phone: 352-392-1601.
- <u>Library Support</u>: Various ways to receive assistance concerning using the libraries or finding resources.
 <u>UF Library Services for Distance Students</u>

 <u>Ask a Librarian</u> chat with librarians online.
 CJC Librarian April Hines, Phone: 352-273-2728, Email: aprhine@uflib.ufl.edu.
- <u>Writing Studio</u>: Provides one-on-one consultations and workshops tailored to specific classes (graduate and undergraduate). 302 Tigert Hall, Phone: 352-846-1138.

Health and Wellness

- *U Matter, We Care:* If you or someone you know is in distress, please contact <u>umatter@ufl.edu</u>, call 352-294-2273, or visit the 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 and 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 <u>Student Health Care Center website</u>.
- University Police Department: Visit the <u>UF Police Department</u> website or call 352-392-1111 (or 9-1-1 for emergencies).
- GatorWell Health Promotion Services: For prevention services focused on optimal well-being, including wellness Coaching for Academic Success, visit the <u>GatorWell website</u> or call 352-273-4450.

Student Fees and Service Entitlement

Student Fees

There are fees mandated by the state and one local fee that ALL students must pay per credit hour. Visit the <u>University</u> Bursar for up-to-date fee rates.



- Capital Improvement Trust Fund Fee
- Technology Fee
- Student Financial Aid Fee [not applicable for certificate programs]

Student services and entitlements

The student services that the distance student is entitled to are comparable to those of the resident student and should include the following:

- Eligibility for financial aid and financial aid advising [not applicable for certificate programs]
- Student complaints and concerns
- Student counseling and advising
- Student organizations
- Technology assistance



Course Schedule		
Week Number	Topic and Assignments	
1	Getting Started with Data Visualization and Storytelling	
	Discussion Board	
	Finding Dataset	
2	Begin your Journey with Tableau	
	Discussion Board	
	Creating Common Visualizations	
3	Exploring, Preparing and Transforming Data	
	Discussion Board	
	Exploring Your Dataset	
	Examine and Interpret Visuals	
4	Best Practices and Pitfalls in Data Visualization	
	Discussion Board	
	Focus the Attention	
5	Exploring and Transforming Data: Calculations, Maps and Filters	
	Discussion Board	
	Create Interactive Visuals	
6	Understanding Your Audience and Tailoring Your Visualizations	
	Discussion Board	
	Visualizations for Different Stakeholders	
	The BIG IDEA Worksheet	
7	Creating a Dashboard Design, Measurement Framework and Storyboarding	
	Create a Measurement Framework	
	Dashboard Design Sketch	
	Storyboard	
8-9	Bringing the Numbers of Life	
	Discussion Board	
	Create an Interactive Dashboard	
10	Spring Break	
11	Crafting Stories that Captivate Your Audience	
	Discussion Board	
	Modify Dashboard	
12	Powering Business Decisions with Visualization and Storytelling	
	Discussion Board	
	Storytelling Presentation	
13	Data Ethics and Integrity	
	Discussion Board	
	Draft Presentation Run Through of Final	
14-15	Data Visualization Tools and AI Integration	
	Discussion Board	
	Final Presentation	



The instructor reserves the right to adjust this syllabus as necessary.