



Course Syllabus: Data Visualization

Dillard College of Business Administration

MIS 5603 Section X10

Fall 2026 | August 24-December 4, 2026

Contact Information

Instructor: Jiaxi Luo

Office: Dillard Building 216

Office hours: Mondays & Wednesdays 3:30-5:30p Tuesdays 10:30-11:30a

Office phone: (940) 397-3268

E-mail: jiaxi.luo@msutexas.edu

Dr. Luo will try to respond to all emails within 24 hours on weekdays.

Course Description

Introduces the principles and practice of turning data into clear, accurate, and compelling visualizations. Students use Tableau to explore data, build charts and dashboards, and communicate business insights through visual storytelling.

Textbook & Instructional Materials

Learning Tableau 2020, 4th edition, by Joshua N. Milligan, Packt, or Learning Tableau 2022, 5th edition.

All chapter numbers referenced in this syllabus refer to Learning Tableau 2020, 4th edition.

- A PC or Mac capable of running Tableau Desktop or Tableau Public. Chromebooks and tablets may not support the required desktop software.
- Additional readings and course materials are posted in D2L.
- Reliable internet access and regular access to D2L and MSU Texas e-mail are required.

Software Requirements

- Lab use: Tableau is available in Dillard Building computer labs 306, 324, and 335.
- Home use: Students may install the current Tableau Desktop or Tableau Public version on a Windows or Mac computer.
- Students are responsible for confirming that their software can create, save, and submit the Tableau files required for assignments and exams.

Course Objectives

General Learning Goals

- GLG1: Our students will exhibit the characteristics of leadership.
- Objective: Our graduates will have the capacity to lead effectively.
- GLG2: Our students will be able to conduct themselves professionally in a global business environment.
- Objective: Our graduates will be able to navigate through the differences among multicultural and international business environments.
- GLG3: Our students will produce creative responses to business situations.
- Objective: Our graduates will demonstrate the capability to critically analyze business situations and develop creative solutions to opportunities and problems.
- GLG4: Our students will integrate knowledge across business disciplines.
- Objective: Our graduates will demonstrate the capability to integrate knowledge across business disciplines.
- GLG5: Our students will communicate at a professional level.
- Objective: Our graduates will be able to communicate in a professional business manner.

Course-Specific Learning Goals

After completing this course, students should be able to:

- Apply principles of visual perception, design, and storytelling to create effective, ethical, and accessible data visualizations.
- Select appropriate visualization techniques based on data characteristics, analytical purpose, audience, and communication goals.
- Use Tableau to explore, analyze, and visualize complex real-world data sets.
- Design compelling visualizations and dashboards that inform, engage, and support business decisions.
- Construct cohesive data-driven narratives supported by accurate visual evidence.
- Critically evaluate visualizations and provide constructive feedback on clarity, integrity, accessibility, and effectiveness.
- Develop a portfolio-quality data visualization project that demonstrates technical proficiency, creative problem-solving, and professional collaboration.

Student Handbook

Refer to: [Student Handbook](#)

Academic Misconduct Policy & Procedures

Academic Dishonesty: Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individual's to whom credit is given). Additional guidelines on procedures in these matters may be found in the Office of Student Conduct.

[Office of Student Conduct](#)

Moffett Library

Moffett Library provides resources and services to support student's studies and assignments, including books, peer-reviewed journals, databases, and multimedia materials accessible both on campus and remotely. The library offers media equipment checkout, reservable study rooms, and research assistance from librarians to help students effectively find, evaluate, and use information. Get started on this [Moffett Library webpage](#) to explore these resources and learn how to best utilize the library.

Grading

Table 1: Points allocated to each assignment

Assignments	Points
Midterm Exam	100
Final Exam	100
Team Project	100
Homework Assignments	100
Total Points	400

Table 2: Total points for final grade.

Grade	Points
A	360 or above
B	320 to less than 360
C	280 to less than 320
D	240 to less than 280
F	Less than 240

Homework

Eleven Tableau-based homework assignments will be posted in D2L. Each assignment is worth 10 points; the 10 highest scores count toward the final grade, for a maximum of 100 homework points. Unless an assignment states otherwise, students must:

- Use Tableau to create the requested visualization(s) and complete all assigned analytical questions.
- Provide concise written answers and observations that interpret the visualization(s) and connect the visual evidence to each question.
- Submit one Tableau Packaged Workbook (.twbx) and a separate Word document (.docx) containing the written answers and observations. Tableau workbook files (.twb) are not accepted because they may not include the required data.
- Upload both files to the corresponding D2L Dropbox by 11:59 p.m. on the posted due date; the D2L timestamp is official.
- Before submitting, verify that the packaged workbook opens correctly, that worksheets are clearly named, and that both required files are attached. The course Late Work policy applies.

Team Project

Students will work in teams of three or four unless the instructor approves a different arrangement. Each team will use an instructor-approved public data set and Tableau to answer meaningful business or research questions. The Team Project is worth 100 points and includes the following requirements:

- **Dataset approval:** The source must be reliable and citable; the number of records and fields must be appropriate for the project scope; the data must include usable geographic fields for a required map; and the data must support meaningful analytical questions. The data must also be ethically and legally appropriate for course use.
- **Tableau workbook:** Create a coherent collection of fit-for-purpose views selected by the team, including at least one map or other geographic visualization, at least one dashboard, and at least one story. Use clear titles, labels, legends, appropriate color contrast, and consistent formatting.
- **Chart selection:** Teams may choose the chart types that best fit the data, question, and audience. The written report must explain why the major chart types were selected and how those choices support accurate interpretation.
- **Written report:** Describe the data source, scope, fields, cleaning or restructuring, analytical questions, descriptive findings, chart-design rationale, key results, limitations, and practical recommendations or actions. Cite data and outside sources appropriately.
- **Recorded presentation:** Deliver a professional 10-15 minute presentation emphasizing the dashboards, stories, key findings, and recommended actions. Every team member must speak meaningfully in the recording.
- **Submission:** One team member must submit the Tableau Packaged Workbook (.twbx), written report (.docx), and presentation recording or accessible recording link to the D2L project Dropbox. Each student must separately submit an individual peer evaluation.
- **Rubrics:** The written report will be evaluated using the DCOBA Graduate General Learning Goal #5 written communication rubric, and the recorded presentation will be evaluated using the corresponding oral communication rubric. The Tableau workbook and completion of all project requirements are included in the project evaluation.
- **Peer evaluation:** A student whose average score received from teammates is below 15 out of 20 will receive an individual downward adjustment to the Team Project grade. The adjustment will reflect the documented contribution concerns and the instructor's review.
- Detailed milestones, submission instructions, and project expectations are provided in the Team Project Instructions posted in D2L.

Exams

The course includes an online midterm exam covering Chapters 1-5 and an online final exam covering Chapters 6-16. Each exam is worth 100 points. Exams are open-book and open-notes but are limited to the course materials provided by the instructor and the textbook. Each student must complete the exam independently; AI tools are not permitted unless the instructor explicitly authorizes them.

- **Timing:** After beginning the midterm exam, students have 3 hours to complete it, followed by a 5-minute period to save and submit their work. After beginning the final exam, students have 4 hours to complete it, followed by a 5-minute period to save and submit their work. The final 5 minutes are reserved only for saving and submitting completed work. The midterm closes 3 hours and 5 minutes after it is started, and the final exam closes 4 hours and 5 minutes after it is started.
- **Multiple-choice questions:** Select the correct answer directly in D2L.
- **Written-response questions:** Create the requested Tableau visualizations and answer every part of each question in the space provided. Name each corresponding Tableau worksheet using the question number (for example, Q1, Q2, and so on).
- **Required submission:** Students must submit their completed responses in D2L and attach the required Tableau Packaged Workbook files (.twbx) to the designated submission question within the quiz. The midterm exam requires one packaged workbook containing all required Tableau work. The final exam requires three packaged workbooks: one covering Questions 1–6, one covering Questions 7–9, and one covering Questions 10–12. Standard Tableau Workbook files (.twb) will not be accepted. Both the written responses and the Tableau work will be graded.
- **Academic integrity:** Unauthorized assistance or collaboration is a violation of the syllabus and university policy and may result in a failing course grade and referral to the Office of Student Conduct.
- **Verification of understanding:** If the instructor has questions about the originality or meaning of a response, the student may be required to meet during office hours and explain the answer and Tableau work. The explanation may be considered when determining the exam score.

Late Work

Unless otherwise stated in D2L, late work will be penalized 5% of the assignment's total points for each calendar day after the deadline. Work submitted within seven calendar days may be accepted with a maximum deduction of 35%; work submitted more than seven calendar days late will not be accepted.

Make Up Work/Tests

Students with excused absences may make up missed examinations and course activities when supporting documentation is provided. Arrangements should be made in advance when possible. The instructor must be contacted no later than the day of the scheduled exam; otherwise, no make-up will be allowed. At the instructor's discretion, a deduction may be assessed for a late exam.

Excused absences include active military, police, or firefighter assignment; jury duty; university-authorized absences; and a medical emergency involving the student or an immediate family member. See the [MSU Catalog](#) for additional university policy information.

Experimental AI-Supported Oral Follow-Up

Following selected examinations, students may be required to complete an experimental AI-supported oral follow-up lasting approximately 10 minutes. The follow-up is considered part of the examination process and is intended to verify that students understand and can explain the work they submitted, including, as applicable, Excel formulas and workbooks, Tableau worksheets, visualizations and dashboards, Python code, analytical methods and decisions, results, observations, and written responses. Students should also be prepared to describe how any permitted AI assistance was used and how its output was reviewed, tested, or modified.

Students may be selected as part of a class-wide pilot, through random selection, or when clarification of submitted work is needed. The instructor may use the student's oral responses to confirm or adjust the score for the related question(s) or portion(s) of the examination. A student's inability to explain, interpret, reproduce, or verify essential elements of submitted work may result in a reduction of the corresponding examination score. Evidence of unauthorized assistance, prohibited collaboration, or misrepresentation of submitted work may also be addressed under the Academic Misconduct Policy.

Detailed procedures, scheduling information, evaluation criteria, technology requirements, and practice opportunities will be provided in D2L before the first oral follow-up. Approved accommodations and make-up arrangements will be provided in accordance with University policy.

Important Dates

- Last day for term schedule changes: August 24-27, 2026
- Deadline to file for graduation: September 21, 2026
- Last Day to drop with a grade of "W:" November 23, 2026, at 4:00 p.m.
- Refer to: [Drops, Withdrawals & Void](#)

Desire-to-Learn (D2L)

Extensive use of the MSU D2L program is a part of this course. Each student is expected to be familiar with this program as it provides a primary source of communication regarding assignments, examination materials, and general course information. You can log into [D2L](#) through the MSU Homepage. If you experience difficulties, please contact the technicians listed for the program or contact your instructor.

Online Participation and Engagement

MIS 5603 Section X10 is an online course and does not carry a separate attendance or participation grade. Students are expected to engage regularly with D2L, complete graded work by the posted deadlines, and contribute responsibly to the Team Project. Failure to log in or participate does not create a separate attendance deduction; however, missed assignments, examinations, project responsibilities, or other graded activities will affect the corresponding grade category. Students remain responsible for all course announcements, materials, and deadlines posted in D2L.

Online Computer Requirements

Taking an online class requires you to have access to a computer (with Internet access) to complete and upload your assignments. It is your responsibility to have (or have access to) a working computer in this class. ****Assignments and tests are due by the due date, and personal computer technical difficulties will not be considered reason for the instructor to allow students extra time to submit assignments, tests, or discussion postings.***

Computers are available on campus in various areas of the buildings as well as the Academic Success Center. ****Your computer being down is not an excuse for missing a deadline!!*** There are many places to access your class! Our online classes can be accessed from any computer in the world which is connected to the internet. Contact your instructor immediately upon having computer trouble. If you have technical difficulties in the course, there is also a student helpdesk available to you. The college cannot work directly on student computers due to both liability and resource limitations however they are able to help you get connected to our online services. For help, log into [D2L](#).

Recording Classes

Recording classes is generally prohibited without the professor's explicit permission. Such recordings, when permitted, are for personal use only and may not be uploaded to the internet or otherwise shared, transmitted, or published without the professor's prior consent. Some faculty may not permit recordings of their classes. When it is feasible and appropriate, students may record classes to accommodate disabilities under the Americans With Disabilities Act, with prior approval of Disability Support Services. Such recordings may not be uploaded to the internet or otherwise shared, transmitted, or published.

Instructor Class Policies

AI-Tool Policy

Students may use AI tools such as ChatGPT for the following limited purposes:

- English writing: Grammar and syntax improvement.
- Visualization brainstorming: Generating alternative chart or dashboard ideas.
- Technical support: Explaining Tableau concepts or troubleshooting steps.

The following requirements apply to every use of AI tools:

- Original analysis: Students must develop their own analytical conclusions and design decisions.
- Academic integrity: Students must disclose permitted AI assistance, verify all output, avoid over-reliance, and never upload protected or confidential data.

AI tools are not permitted during exams unless explicitly authorized. Use AI responsibly and prioritize genuine understanding, accurate work, and original thinking.

Change of Schedule

The instructor may modify the course schedule, procedures, assignments, or deadlines when necessary. Changes will be announced in D2L. Students are responsible for following the most recently posted schedule and announcements.

Refund and Repayment Policy

A student who withdraws or is administratively withdrawn from Midwestern State University (MSU) may be eligible to receive a refund for all or a portion of the tuition, fees and room/board charges that were paid to MSU for the semester. HOWEVER, if the student received financial aid (federal/state/institutional grants, loans and/or scholarships), all or a portion of the refund may be returned to the financial aid programs. As described below, two formulas (federal and state) exists in determining the amount of the refund. (Examples of each refund calculation will be made available upon request).

Services for Students with Disabilities

In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Midwestern State University endeavors to make reasonable accommodations to ensure equal opportunity for qualified persons with disabilities to participate in all educational, social, and recreational programs and activities. After notification of acceptance, students requiring accommodations should make application for such assistance through Disability Support Services, located in the Student Wellness Center, (940) 397-4140. Current documentation of a disability will be required in order to provide appropriate services, and each request will be individually reviewed. For more details, please go to [Disability Support Services](#).

Emergency Aid Resources for Basic Needs

Unexpected life circumstances can affect anyone. If you are experiencing challenges meeting basic needs—such as housing, utilities, food, transportation, healthcare, technology, textbooks or other life necessities, resources may be available to help. Visit the [Student Emergency Support and Resources webpage](#) to learn more, and explore emergency support opportunities through MSU and how to access them. For additional information, please contact the Office of Student Affairs:

Clark Student Center #108, (940) 397-7500, student.affairs@msutexas.edu.

College Policies

Campus Carry Rules/Policies

Refer to: [Campus Carry Rules and Policies](#)

Smoking/Tobacco Policy

MSU Texas is a tobacco-free campus. Smoking and the use of smokeless tobacco, e-cigarettes, and other tobacco-derived products are prohibited in all University-owned or leased indoor and outdoor areas, University vehicles, and private vehicles parked on University property. The policy applies to everyone, with no exceptions.

Alcohol and Drug Policy

To comply with the Drug Free Schools and Communities Act of 1989 and subsequent amendments, students and employees of Midwestern State are informed that strictly enforced policies are in place which prohibits the unlawful possession, use or distribution of any illicit drugs, including alcohol, on university property or as part of any university-sponsored activity. Students and employees are also subject to all applicable legal sanctions under local, state and federal law for any offenses involving illicit drugs on University property or at University-sponsored activities.

Campus Carry

Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes has prohibited. The new Constitutional Carry law does not change this process. Concealed carry still requires a License to Carry permit, and openly carrying handguns is not allowed on college campuses. For more information, visit [Campus Carry](#).

Active Shooter

The safety and security of our campus is the responsibility of everyone in our community. Each of us has an obligation to be prepared to appropriately respond to threats to our campus, such as an active aggressor. Please review the information provided by MSU Police Department regarding the options and strategies we can all use to stay safe during difficult situations. For more information, visit [MSUReady – Active Shooter](#). Students are encouraged to watch the video entitled “Run. Hide. Fight.” which may be electronically accessed via the University police department’s webpage: ["Run. Hide. Fight."](#)

Grade Appeal Process

Students who wish to appeal a grade should consult the Midwestern State University [MSU Catalog](#)

***Notice:** Changes in the course syllabus, procedure, assignments, and schedule may be made at the discretion of the instructor.

Course Schedule:

Keep this syllabus as a reference. Students are responsible for the contents and for announced changes. The schedule below follows the Fall 2026 weekly cadence and may be adjusted by the instructor.

<i>Week</i>	<i>Dates</i>	<i>Class Topics</i>
1	08/24 – 08/31	Course overview; Chapter 1
2	08/31 – 09/07	Chapters 1 & 2
3	09/07 – 09/14	Chapter 3
4	09/14 – 09/21	Chapter 3
5	09/21 – 09/28	Chapter 4
6	09/28 – 10/05	Chapters 4 & 5
7	10/05 – 10/12	Chapter 5
	10/12	Midterm Exam: Chapters 1 to 5
8	10/12 – 10/19	Chapter 6
9	10/19 – 10/26	Chapters 7 & 8
10	10/26 – 11/02	Chapters 8 & 9
11	11/02 – 11/09	Chapters 10 & 11
12	11/09 – 11/16	Chapter 12
13	11/16 – 11/23	Chapter 13
14	11/23 – 11/30	Chapters 14, 15, & 16
15	12/07	Project Presentation Due
	12/07	Final Exam: Chapters 6 to 16