



Course Syllabus: **Data Visualization**

Dillard College of Business Administration

MIS 5603 Section X10

Fall Semester 2024

Contact Information

Instructor: Jiaxi Luo

Office: Dillard Building 216

Office hours: Mondays & Wednesdays 4:00 – 5:30p Tuesdays 10:00a-12:00p

Office phone: (940) 397-3268

E-mail: jiaxi.luo@msutexas.edu

Instructor Response Policy

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

Textbook & Instructional Materials

1. Required: Learning Tableau 2020 – 4th Edition by Joshua N. Milligan, Packt Publishing (www.packt.com) An e-edition works as well as a print version, or Learning Tableau 2022 - Fifth Edition

2. Software: Tableau is available in Dillard lab 306, 324, and 335.

3. You must have access to the Internet. The Desire2Learn (D2L) website will be utilized extensively for submitting assignments, posting grades and communicating information about the class.

4. You must register a “Preferred” email address in Banner/WebWorld. This should be an email address that you monitor closely, since I will communicate with you periodically via email.

Course Description

Data Visualization equips students with the skills to create compelling visualizations that effectively communicate complex data insights. Participants will learn fundamental principles of visual perception, design, and storytelling, and gain hands-on experience applying industry-standard tools to real-world datasets.

Through a blend of lectures, discussions, and practical projects, students will develop the ability to explore data, create informative and engaging visualizations, and craft persuasive data-driven narratives. By the end of the course, students will have a portfolio showcasing their proficiency in transforming data into impactful visual stories. Prerequisites include basic statistics and familiarity with data tools like spreadsheets or databases.

Course Objectives/Learning Outcomes/Course Competencies

I. **General Learning Goals:**

- **Our students will exhibit the characteristics of leadership.** The class has group work requiring students to evaluate each team member based on the DCOBA common rubric. The leadership rubric includes participation, teamwork, organization skills, character, and communication items.
- **Our students will produce creative responses to business situations.** The group assignments require students to apply descriptive, predictive, and prescriptive analytics to case studies. Various class activities will also require students to respond to business situations.
- **Our students will communicate at a professional level.** The class assignments and group projects require students to communicate at a professional level. There are written reports required for group assignments.

These general learning goals are among those established by the Dillard College of Business Administration. General learning goals represent the skills that graduates will carry into their careers. While assessing student performance in obtaining these general learning goals, Dillard College is assessing its programs. The assessments will assist us as we improve our curriculum and curriculum delivery.

II. **Course Specific Learning Goals:** After completing this course, students should be able to:

- Understand and apply principles of visual perception, design, and storytelling to create effective data visualizations.
- Select appropriate visualization techniques based on data characteristics, audience, and communication goals.
- Use industry-standard tools to explore, analyze, and visualize complex real-world datasets.
- Design and develop compelling data visualizations that inform, engage, and persuade target audiences.
- Construct cohesive narratives and arguments supported by data-driven insights and visual evidence.
- Critically evaluate and provide constructive feedback on the effectiveness of data visualizations.
- Build a portfolio of data visualization projects demonstrating technical proficiency and creative problem-solving.

Student Handbook

Refer to: [Student Handbook-2021-22](#)

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](#)

Grading/Assessment

o Examinations (50%):

Exams may be arranged online or face-to-face. Each exam may include multiple-choice and producing visualizations using Tableau.

o Team Project (25%):

Three students work together to deliver a professional project presentation. Each group will submit a recording of the presentation (approximately 10-15 minutes) together with the completed Tableau workbook and a written report, demonstrating the questions asked and how to use data visualization to answer these questions. Detailed instructions will be provided during the semester.

o Assignments (25%):

Twelve homework will be assigned for each week after study. Ten highest will be counted, with each worth 10 points.

Points will be allocated using the following scheme. Grades will be based on the recorded points only. Personal reasons (e.g., need a specific grade to graduate, to keep financial aid, to keep straight A record, etc.) are not considered in the grade calculation.

Table 1: Points allocated to each assignment

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

Table 2: Total points for final grade.

Grade	Points
A	360-400
B	320-359
C	280-319
D	240-279
F	<240

Late Work

Late homework less than one week after deadline maybe accepted, certain points will be deducted.

Make Up Work/Tests

Students with excused absences may make up missed examinations, quizzes (announced and unannounced), and in-class activities, but supporting documents are required. Arrangements must be made in advance if possible. In all cases, the instructor must be contacted no later than the day of the scheduled exam or 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/firefighter assignment, jury duty, university-authorized absences (for example, athlete events or study-abroad programs), and medical emergency for yourself or your immediate family member. For more information about university authorized absences, please refer to Midwestern State University Undergraduate Catalog:

[http://catalog.mwsu.edu/content.php?catoid=7&navoid=228&hl=authorized+&returnto=search#General Information](http://catalog.mwsu.edu/content.php?catoid=7&navoid=228&hl=authorized+&returnto=search#General%20Information)

Important Dates

Last day for term schedule changes: 08/26/2024-08/29/2024

Deadline to file for graduation: 09/23/2024

Last Day to drop with a grade of "W:" 11/25/2024

Check date on [Academic Calendar](#).

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.

Attendance

Students are expected to attend all meetings of the classes in which they are enrolled. Although in general students are graded on intellectual effort and performance rather than attendance, absences may lower the student's grade where class attendance and class participation are deemed essential by the faculty member. In those classes where attendance is considered as part of the grade, the instructor should so inform students of the specifics in writing at the beginning of the semester in a syllabus or separate attendance policy statement. An instructor who has an attendance policy must keep records on a daily basis. The instructor must give the student a verbal or written warning prior to being dropped from the class. Instructor's records will stand as evidence of absences. A student with excessive absences may be dropped from a course by the instructor. Any

individual faculty member or college has the authority to establish an attendance policy, providing the policy is in accordance with the General University Policies.

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 that 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](#).

Instructor Class Policies

- No food or beverage is allowed in the classroom. This is a college policy.
- Please come to class on time. Take care of personal business prior to class. I do not expect you to leave and return to class (unless there was an emergency, and you explain it to me after class).
- Class time is not for surfing the Web, monitoring Facebook, texting, or catching up on email. You will be asked to leave the class if you continually violate this policy. The same thing applies to cell phone usage for messaging during class.
- Turn off or silence your cell phones and any other electronic devices and put them away. Please, no texting. I think we can all go a little over an hour without contact with the outside world! Leaving class to return calls and coming back is not acceptable. If you have an emergency that requires your cell phone to be on, let me know and we'll work something out.
- Dress appropriately and conduct yourself professionally and with respect toward your peers and the instructor. Please don't talk while the instructor or others are discussing course materials. Participating in the class is the best way to avoid disturbing the class.
- Follow MSU Covid19 behavioral policies and procedures

Change of Schedule

A student dropping a course (but not withdrawing from the University) within the first 12 class days of a regular semester or the first four class days of a summer semester is eligible for a 100% refund of applicable tuition and fees. Dates are published in the [Schedule of Classes](#) each semester.

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 Clark Student Center, Room 168, (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](#).

College Policies

Campus Carry Rules/Policies

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

Smoking/Tobacco Policy

College policy strictly prohibits the use of tobacco products in any building owned or operated by MSU TEXAS Adult students may smoke only in the outside designated-smoking areas at each location.

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

Update as needed. 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.

AI-Tool Policy

We encourage students to harness AI tools, like ChatGPT, within the following guidelines:

- **English Writing:** Use AI for grammar and syntax improvement.
- **Drafting & Structuring:** Employ AI to help generate and structure case study drafts.
- **Summarization:** Use AI tools for concise summaries of lengthy case studies.

However:

- **Original Thought:** While using AI for assistance, students must develop and present their own unique opinions on cases.
- **Academic Integrity:** Understand and support any content from AI tools. Avoid over-reliance and ensure originality. Misrepresentation will face academic consequences.

Leverage AI benefits responsibly and prioritize genuine understanding and original thinking.

Course Tentative Schedule:

Please keep this syllabus as a reference! Students are responsible for all information contained in the syllabus and for any changes to the syllabus, which will be announced in class.

Course Tentative Schedule

<i>Week</i>	<i>Dates</i>	<i>Class Topics</i>
1	08/26 – 09/02	Course overview; Chapter 1
2	09/02 – 09/09	Chapters 1& 2
3	09/09 – 09/16	Chapter 3
4	09/16 – 09/23	Chapter 3
5	09/23 – 09/30	Chapter 4
6	09/30 – 10/07	Chapters 4& 5
7	10/07 – 10/14	Chapter 5
	10/14	Midterm Exam Chapters 1 to 5
8	10/14 – 10/21	Chapter 6
9	10/21 – 10/28	Chapter 7&8
10	10/28 – 11/04	Chapter 8&9
11	11/04 – 11/11	Chapter 10&11
12	11/11 – 11/18	Chapter 12
13	11/18 – 11/25	Chapter 13
14	11/25 – 12/02	Chapter 14&15&16
15	12/09	Project Presentation Due
	12/09	Final Exam Chapters 6 to 16