



Course Syllabus: Analytics for Business Decision-Making

Dillard College of Business Administration DB 335

MIS 4233 Section 201

Spring Semester 2026 MW 9:30 AM – 10:50 AM

Contact Information

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Office hours: Monday 11:00 AM to 12:00 PM & 2:00 PM to 3:30 PM, Tuesday 1:30 PM to 3:00 PM, Wednesday 11:00 AM to 12:00 PM; other time by appointment.

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Course Description

This course covers predictive and prescriptive analytics methods for solving business problems. Topics include regression, forecasting with time series data, simulation, and optimization.

Textbook & Instructional Materials

1. Required textbook: Business Analytics: Communicating with Numbers. 2nd Ed. Jaggia et al. (ISBN 13: 9781265687571).
2. Required software: JupyterLab with Python 3; Microsoft Office local installation (not cloud-based). (If you use campus computers, Dillard building computer labs have all the software installed.)

Course Prerequisite(s)

BUAD 3033.

Other Requirements

The university-assigned (my.msutexas.edu) email address is required to receive all official communication from Midwestern State University. The university-assigned student email account is Midwestern State University's official means of email communication with all students. Students are responsible for all official information sent to their university-assigned email account. Students are expected to check their email regularly and are responsible for all information sent to them via their university-assigned email address. ***Please make sure you check your my.msutexas.edu email for email communication regarding this course. When you email me, you must use your my.msutexas.edu email.**

General Learning Goals

- Problem-solving and decision-making abilities through critical analysis, evaluation, and interpretation of business information. Students will analyze business cases and make business decisions based on the analysis results.
- Competency in writing for common business scenarios. Written assignments are expected to accurately communicate the analysis results and shouldn't contain any grammatical or punctuation errors.
- Technology Utilization. Class lectures, demonstrations, and activities involve expanded coverage of information technology, such as data analysis with Python and Microsoft Excel.

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 with them into their careers. While assessing student performance in obtaining these general learning goals, Dillard College is assessing its programs. The assessments help us improve our curriculum and its delivery.

Course-Specific Learning Goals

After completing this course, students should be able to:

- Understand and apply logistic regression analysis techniques
- Develop time series forecasting models and assess their performance
- Implement k-Nearest Neighbors (KNN) for classification
- Build and analyze spreadsheet models
- Simulate uncertain systems to model risk and make informed decisions
- Formulate and solve optimization problems

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](#)

Academic dishonesty (cheating, lying, collusion, and plagiarism) will not be tolerated. The term "cheating" generally means representing someone else's work as your own and includes, but is not limited to:

1. Acting with intent to promote or assist cheating, including soliciting, encouraging, directing, or aiding attempts of fellow students to cheat on an exam or an assignment.
2. Soliciting information about exam questions from students who have taken a test.
3. Intentionally or negligently aiding someone taking an exam or quiz.
4. Looking or glancing at another student's exam while the exam is being taken.
5. Soliciting answers to an exam or an assignment from a fellow student.
6. Using any device to record a test, including eyeglasses, cellphones, watches, and calculators, etc.
7. Acquiring an exam or other academic testing material without the express permission of the professor who authored the exam.
8. Copying, disseminating, spreading, circulating, sharing, or publicizing any questions on an exam given for credit.
9. Violation of exam rules and procedures.

Academic integrity violations are grounds for being dropped from this class with an F and referral to the Dean of Students for disciplinary action, which may result in expulsion from the University.

Grading

Table 1: Points allocated to each grading element

Element	Points
Homework assignments	60
Activities	40
Exam 1	100
Exam 2	100
Final Exam	100
Total Points	400

***All the above grading elements are to be completed individually unless otherwise stated by the instructor.**

Table 2: Total points for final grade.

Letter Grade	Points
A	360 or greater
B	320 to 359
C	280 to 319
D	240 to 279
F	Less than 240

Grades will be based on the recorded points only. Personal reasons (e.g., technical problem at a student's end, need a specific grade to graduate, to keep financial aid, to keep straight A record, etc.) are not considered in the grade calculation.

Homework Assignments

Up to 60 points will be assigned to homework. All homework assignments are individual homework (not team/group work) unless explicitly announced otherwise by the instructor. Any points not assigned during the semester will be removed from the total possible for the course when calculating grade percentages.

Activities

Up to 40 points will be assigned to activities. Any points not assigned during the semester will be removed from the total possible for the course when calculating grade percentages.

Exams

The exams will cover assigned readings and practices, in-class lectures, and any other assigned work.

Attendance Policy

Regular attendance is expected, and the roll will be taken. Upon a student's fifth unauthorized absence, that student can be dropped for nonattendance and receive a grade of WF for the course. Participation in class is mandatory. Students must read the assigned material and complete assignments prior to coming to class, and be prepared to discuss and ask questions relating to the assigned materials. See the MSU Student Handbook for the University Class Attendance Policy

Missed Exams, Homework, and Activities Policy

Only students with conflicts involving authorized University activities or having verified medical circumstances may ask in advance to make up missed examinations, homework, and/or activities. Written verification is mandatory in either case. Arrangements must be made in advance if at all possible. At the instructor's discretion, a grade deduction may be assessed.

Late Work

There is NO PROVISION for late work on any grading items. Plan and schedule to complete work early. Having your work completed on schedule is a key to early success in your business career.

Class Policy Regarding the Use of Generative AI Tools (e.g., ChatGPT)

During our class, we may use Generative AI tools such as ChatGPT in some activities/assignments. You will be informed which activities/assignments these tools are permitted to be used for. Any use outside of this permission constitutes an academic integrity violation.

Syllabus Change Policy

This syllabus is a guide for the course and is subject to change. Syllabus changes will be communicated in class and may or may not result in changes to the document. If absent, it is the student's sole responsibility to find out from other

students or the instructor whether anything affecting the course requirements or schedule was announced during the missed classes.

Bad Weather Procedures

If the university announces class cancellation or delay and our class is affected, please check our D2L page under the News section for detailed information and/or changes to our schedule.

Important Dates

- Last day for term schedule changes: 01/23/2026.
- Deadline to file for graduation: 02/16/2026 for May graduation
- Last Day to drop with a grade of "W:" 04/29/2026
- Check date on [Academic Calendar](#)
- Refer to: [Drops, Withdrawals & Void](#)

Desire-to-Learn (D2L)

Extensive use of the MSU D2L platform is a part of this course. Each student is expected to be familiar with this platform 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 [university distance education](#).

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.

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 apply 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](#).

Moffett Library

Moffett Library provides resources and services to support students' 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.

Additional Policies

Smoking/Tobacco Policy

College policy strictly prohibits the use of tobacco products in any building owned or operated by WATC. 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

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

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

Course Schedule:

Week	Date (MM/DD)	Day	Chapter	Topic
1	1/21	Wednesday	Introduction	Class Overview
2	1/26	Monday	7	Chapter 7 Regression analysis (Overview)
2	1/28	Wednesday	8	Chapter 8 More topics in regression analysis
3	2/2	Monday	8	Chapter 8 More topics in regression analysis
3	2/4	Wednesday	9	Chapter 9 Logistic Regression
4	2/9	Monday	9	Chapter 9 Logistic Regression
4	2/11	Wednesday	9	Chapter 9 Logistic Regression
5	2/16	Monday	9	Chapter 9 Logistic Regression
5	2/18	Wednesday	review	Exam1 review
6	2/23	Monday	Exam 1	Exam 1
6	2/25	Wednesday	10	Chapter 10 Forecasting with time series data
7	3/2	Monday	10	Chapter 10 Forecasting with time series data
7	3/4	Wednesday	10	Chapter 10 Forecasting with time series data
8	3/9 – 3/14	N/A	Spring break	No class
9	3/16	Monday	10	Chapter 10 Forecasting with time series data
9	3/18	Wednesday	12	Chapter 12 KNN

Week	Date (MM/DD)	Day	Chapter	Topic
10	3/23	Monday	12	Chapter 12 KNN
10	3/25	Wednesday	15	Chapter 15 Spreadsheet modeling
11	3/30	Monday	review	Exam 2 review
11	4/1	Wednesday	Exam 2	Exam 2
12	4/6	Monday	15	Chapter 15 Spreadsheet modeling
12	4/8	Wednesday	15	Chapter 15 Spreadsheet modeling
13	4/13	Monday	15	Chapter 15 Spreadsheet modeling
13	4/15	Wednesday	16	Chapter 16 Risk analysis and simulation
14	4/20	Monday	16	Chapter 16 Risk analysis and simulation
14	4/22	Wednesday	17	Chapter 17 Optimization
15	4/27	Monday	17	Chapter 17 Optimization
15	4/29	Wednesday	17	Chapter 17 Optimization
16	5/4	Monday	18	Chapter 18 More applications in optimization
16	5/6	Wednesday	review	Exam 3 review
Final	5/11	Monday	Exam 3	Exam 3 (8-10 AM)