Course Syllabus: Special Topics in MIS

Dillard College of Business Administration
MIS 4663, Section X20
Spring 2026
Online Course

Contact Information

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Course Description

Topics vary. May be repeated with different content.

This course presents the business-related impact of artificial intelligence, data science, and analytics. Emphasis is provided on the illustrating capabilities and justifications of business analytics.

Course Learning Goals

Course General Learning Goals:

- Our students will be effective at problem solving and decision making. Hands-on assignments and a project will be assigned. These assessments require students to utilize technology to gather relevant formation and practice-related data analysis. These graded assessments are a portion of the overall course grade.
- Our students will be technologically prepared. Extensive use of technology is throughout the course. Altair AI Studio (RapidMiner Studio) will be the primary coverage. Students will also demonstrate their ability to use typical business computer applications by utilizing Microsoft applications and generative AI applications.

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 will assist us as we improve our curriculum and curriculum delivery.

Course Specific Learning Goals:

- Know the basic concepts of Business Intelligence, Analytics, Data Science

- Know the basic concepts of Artificial Intelligence, Robotics, and Smart Systems
- Learn about descriptive analytics regarding the nature of data and statistics modeling
- Understand the importance of business intelligence and data visualization
- Learn the standardized data mining processes
- Learn different methods and algorithms of data mining for predictive analytics
- Understand the process of text and web analytics
- Know the basic types of deep learning and cognitive computing
- Understand the applications of prescriptive analytics techniques using optimization and simulation
- Learn the landscape of software tools and languages used for analytics
- Know the AI-based trends in analytics and data science
- Understand ethical, privacy, and managerial considerations in Analytics

Textbook & Instructional Materials

- Business Intelligence, Analytics, Data Science, and AI, fifth edition, by Ramesh Sharda, Dursun Delen, Efraim Turban. Pearson Publishing.
- Altair AI Studio (formerly RapidMiner Studio) is required for hands-on assignments. RapidMiner Studio can be downloaded for free with a one-year educational license. Please use students .edu email address to sign up. Please make sure you check the purpose radio button of "Educational Purpose." Please make sure you have a proper device to work with the software. Note that Chromebook will NOT be able to accommodate this software.

Tutoring Assistance

There is a BAIS/MIS tutor to assist this course in DB 206. Please see the tutor for the assistance time schedule.

Student Handbook

Refer to: Student Handbook

Academic Misconduct Policy & Procedures

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

Students' performance will be assessed using the following activities.

Table 1: Points allocated to each activity

Activity	Points
Exams	40
Altair AI Studio Assignments	30
AI-Assisted Project	28
Participation (Syllabus Quiz and Self Intro)	02
Total Points	100

Table 2: Total points for final grade.

Grade	Points
A	90
B	80 to 89
C	70 to 79
D	60 to 69
F	Less than 60

Exams

There are three exams. D2L Exams cover assigned chapters, assignments, exercises, and projects. Students are responsible for all posted materials, even if it is not directly discussed in class.

Assignments

Altair AI Studio assignments are required on a weekly basis. Students are responsible for completing the assigned introduction videos and working through the corresponding hands-on learning demonstrations using Altair AI Studio. In addition, students must complete an Altair AI Studio certification assessment at the end of the semester. All students are required to create an account on the Altair Learning Academy. It can help to track progress and completion of course-required activities.

Project

Students leverage Altair AI Studio and approved AI tools to transform raw business data into actionable managerial insights. The project is scaffolded through phases covering data preparation, exploration analysis, and predictive modeling. AI tools serve as an assistant catalyst for project planning and data analysis. Students maintain full accountabilities for all analytical outcomes and project reports.

Attendance and Participation

This course follows the university policies regarding attendance. Students are expected to attend all meetings of the classes in which they are enrolled. Online course attendance is not required. Instructors do check students' online learning activities.

Instructor's records of class attendance stand as evidence of absences. Absences will be excused only for approved school trips or severe health issues. A student with excessive absences may be dropped from a course by the instructor. If Zoom attendance is requested and approved by the instructor, make sure that video camera and microphone work, and the student needs to be presented professionally throughout the meeting.

Class participation in all formats (questions, answers, comments, and feedback) is highly encouraged to achieve a good participation grade.

Late or Missing Work

Ample time window will be provided to finish class activities and submit assignments. Written verification is mandatory for late or missing work. The instructor must be contacted by the day of the scheduled activity, or NO makeup will be allowed. A deduction may be assessed for a late exam or assignment at the instructor's discretion.

Important Dates

- Last day for term schedule changes: January 23, 2026
- Deadline to file for graduation: February 16, 2026
- Last Day to drop with a grade of "W:" April 29, 2026
- 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 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 as a 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 after having computer trouble If you have technical difficulties in the course, there is also a student help desk 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**.**

Change of Schedule

A student dropping a course (but not withdrawing from the University) within the first twelve class days of a regular semester or the first four class days of a summer semester is eligible for a100% 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) exist 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 about disability will be required to provide appropriate services, and each request will be individually reviewed. For more details, please go to Disability Support Services.

College Policies

Smoking/Tobacco Policy

College policy 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 MSU Catalog.

Course Schedule

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

Date	Chapter	In Class Topic	Assignments Due	Project Due
Jan-20	Introduction	Course Introduction, AI Studio Installation, Syllabus Review	Syllabus Quiz, Self Introduction	
Jan-26	1	An Overview of Business Intelligence, Analytics, and Data Science	Altair AI Studio Account Set Up and Studio Installation	
Feb-02	2	Artificial Intelligence, Robotics, and Smart Systems	Machine Learning (ML) - Welcome	
Feb-09	3	Descriptive Analytics I: Nature of Data, Big Data and Statistical Modeling	ML Course - Intro to ML (part 1)	
Feb-16	4	Descriptive Analytics II: Business Intelligence, Data Warehousing, and Visualization	ML Course - Intro to ML (part 2)	
Feb-23		Exam 1 - Chapters 1 - 4, and Assignments		

Date	Chapter	In Class Topic	Assignments Due	Project Due
Mar-02	5	Predictive Analytics I: Data Mining Process, Methods, and Algorithms	ML Course - Supervised Learning (part 1)	
Mar-09		Spring Break		
Mar-16	6	Predictive Analytics II: Text, Web, and Social Media Analytics	ML Course - Supervised Learning (part 2)	Project Deliverable 1
Mar-23	7	Deep Learning and Cognitive Computing	ML Course - Supervised Learning (part 3)	
Mar-30	8	Prescriptive Analytics: Optimization and Simulation	ML Course - Scoring	Project Deliverable 2
Apr-06		Exam 2 - Chapters 5-8, and Assignments		
Apr-13	9	the Landscape of Software tools and Languages	ML Course - Unsupervised Learning (part 1)	Project Deliverable 3
Apr-20	10	New AI-Based Trends in Analytics and Data Science	ML Course - Unsupervised Learning (part 2)	
Apr-27	11	Ethical, Privacy and Managerial Considerations in Analytics	ML Course - Feature Engineering	Project Deliverable 4
May-04		Project Finalization	ML Course – Auto Model	Project Deliverable 5 & 6
May-11	Finals	Exam 3 - Chapters 9-11, and Assignments	ML professional certification test	