Dillard College of Business Administration

Syllabus: Business Analytics
MIS 4153 MW 11:00 AM to 12:20 PM at DB 324
Fall Semester 2023

Contact Information

Instructor:	Jie Zhang, Associate Professor of Management Information Systems
Office:	DB 218
Office hours:	Monday 2 PM to 4 PM; Tuesday 1:30 PM to 4 PM; Wednesday 9 AM to 9:30 AM; other time by appointment.
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Course Materials

1. Required software: JupyterLab with Python 3; Tableau; Microsoft Office.
2. Required textbook:
   Business Analytics: Communicating with Numbers. 2nd Ed. Jaggia (2023).
   MIS 4153 is included in the MSU Texas Access & Affordability Program for the Fall semester. What does this mean?
   - To access your content, please log into your my.msutexas.edu email and look for the email from Brytewave. Follow the instructions included in this email. You must first set up a Brytewave account, using your my.msutexas.edu email as the "user".
   - The money saving charge of $43.75 + tax has been added to your student account. This is below the publisher's website pricing.
   - You have the choice to "opt out" of this special pricing and find your material on your own. If you prefer to "opt out", the instructions will be in your my.msutexas.edu email on the second day of class. The last day to opt out and find your content on your own is 9/13/23.
   - For questions concerning the program or if you need assistance, please contact the Bookstore at jenny.denning@msutexas.edu.
3. You must have access to a computer with a webcam that allows you to install needed software, access the course materials, and complete assigned tasks. For the standard computer requirements, please see page 53 on the University return to campus report. (Chromebooks won't work due to insufficient computing power.)

Course Description

This course covers business analytics concepts, methods, tools, and applications. In this course, students will apply business analytic models on large datasets and make business decisions based on the analysis results.

Course Prerequisite(s)

MIS 3003 and BUAD 3033, or consent of the instructor.

Learning Goals

I. 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 decision analysis with Tableau and Python. Students will also demonstrate their ability to use common business computer applications, including Microsoft Word 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 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 different types of business analytics
- create graphs, charts, and other visualizations that demonstrate analysis of data
- construct reports that include graphical representations of data
- use basic data mining methods to make business decisions.

Course Policies

Attendance Policy: Regular attendance is expected, and 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, in either case, is mandatory. Arrangements must be made in advance if at all possible. At the instructor's discretion, a deduction may be assessed for a late exam, assignment, or activity.

Homework assignments: Assignments are due before the beginning of class on the specified due date. There is NO PROVISION for late work on any assignment. Plan and schedule to complete work early. Having your work completed on schedule is a key to early success in your business career.

Grading and Evaluation:

Exams (3): Exams will cover assigned readings and practices, in-class lectures, and any other assigned work.

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.

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.

Table 1: Points allocated to each element

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

Table 2: Grading System

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., need a specific grade to graduate, to keep financial aid, to keep a straight A record, etc.) are not considered in the grade calculation.

In order to help students keep track of their progress toward course objectives, the instructor for this class will provide a Midterm Progress Report through Navigate. Midterm grades will not be reported on students' transcripts or calculated in the cumulative GPA. They simply give students an idea of where they stand at the midpoint of the semester. Students earning below a C at the midway point should schedule a meeting with the professor to discuss their performance in this course.

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. Any use outside of this permission constitutes an academic integrity violation.

Academic Integrity:

With regard to academic honesty, students are referred to the "Student Honor Creed", including the following statements: "We consider it dishonest to ask for, give, or receive help in examinations or quizzes, to use any unauthorized material in examinations, or to present, as one's own, work or ideas which are not on entirely one's own. We recognize that any instructor has the right to expect that all student work is honest, original work. We accept and acknowledge that responsibilities for lying, cheating, stealing, plagiarism, and other forms of academic dishonesty fundamentally rests with each individual student."

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, a quiz, 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 a quiz.
4. Looking or glancing at another student's exam while the exam is being taken.
5. Soliciting answers of an exam, a quiz, or an assignment from a fellow student.
6. Using any device to record a test, including eyeglasses, cellphones, watches, 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.

Americans with Disabilities Act:

If a student has an established disability as defined by the Americans with Disabilities Act and would like to request an accommodation, that student should please contact me as soon as possible. Any student requesting accommodations should first contact Disability Support Services at 940-397-4140 in room 168 Clark Student Center to document and coordinate reasonable accommodations if you have not already done so.

Campus Carry Policy

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](#).

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 document changes. If absent, it is the student's sole responsibility to find out from other students, or the instructor, if anything affecting the course requirements or schedule was announced in the classes missed.

Classroom Behavior:

- 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 is an emergency and you explain it to me after class).
- Computers will remain off during class except as directed by the instructor. Class time is not for surfing the Web, monitoring online social networks, 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 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.

Course Schedule (see details in Table 3):

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 or on D2L. Any modifications announced in class or on D2L take precedent over the below schedule.

Course Schedule

Table 3: This table shows weekly schedule for major topics to be covered in class. (2nd ed textbook.)

Week	Date	Day	Chapter	Topic
1	Aug. 28	Monday	Introduction	Class Overview
	Aug. 30	Wednesday	1	Chapter 1 introduction to business analytics
2	Sept. 4	Monday	Labor Day	No class
	Sept. 6	Wednesday	1	Chapter 1 introduction to business analytics
3	Sept. 11	Monday	2	Chapter 2 data management and wrangling
	Sept. 13	Wednesday	2	Chapter 2 data management and wrangling
4	Sept. 18	Monday	2	Chapter 2 data management and wrangling
	Sept. 20	Wednesday	2	Chapter 2 data management and wrangling
5	Sept. 25	Monday	review	Exam1 review
	Sept. 27	Wednesday	Exam 1	Exam 1
6	Oct. 2	Monday	3	Chapter 3 summary measures
	Oct. 4	Wednesday	3	Chapter 3 summary measures
7	Oct. 9	Monday	4	Chapter 4 data visualization
	Oct. 11	Wednesday	4	Chapter 4 data visualization
8	Oct. 16	Monday	7	Chapter 7 regression analysis
	Oct. 18	Wednesday	7	Chapter 7 regression analysis
9	Oct. 23	Monday	7	Chapter 7 regression analysis
	Oct. 25	Wednesday	7	Chapter 7 regression analysis
10	Oct. 30	Monday	review	Exam 2 review
	Nov. 1	Wednesday	Exam 2	Exam 2
11	Nov. 6	Monday	11	Chapter 11 introduction to data mining
	Nov. 8	Wednesday	11	Chapter 11 introduction to data mining
12	Nov. 13	Monday	13	Chapter 13 supervised data mining: decision trees
	Nov. 15	Wednesday	13	Chapter 13 supervised data mining: decision trees
13	Nov. 20	Monday	13	Chapter 13 supervised data mining: decision trees
	Nov. 22	Wednesday	Thanksgiving holiday	No class
14	Nov. 27	Monday	13/14	Chapter 13/14
	Nov. 29	Wednesday	14	Chapter 14 unsupervised data mining
15	Dec. 4	Monday	14	Chapter 14 unsupervised data mining
	Dec. 6	Wednesday	review	Final exam review
Final	Dec. 11	Monday	Final exam	Final exam (10:30 AM to 12:30 PM)