



Course Syllabus: Database Design and Management

Dillard College of Business Administration

MIS 3123, Section 101 and Z10

Fall 2026

TR 11:00am – 12:20pm

DB 306

Contact Information

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Course Description

An examination of database management systems and their applications in business. Emphasis is placed on design, consideration of the end-user, and management of the database. There will be extensive hands-on use of a microcomputer-based database package.

Course Learning Goals

Course General Learning Goals:

- **Problem Solving and Decision Making.** Various hands-on workbenches, online exercises, and external SQL interactive lessons will be the primary means by which the students learn the concepts of developing database applications in business. These graded hands-on are a portion of the overall course grade.
- **Technology Utilization.** Extensive use is made of business application technology throughout the course. Various software will be demonstrated to, evaluated by, and used by, the students. DBMS software includes but is not limited to Microsoft Access and MySQL. Students will also demonstrate their ability to use typical Microsoft Office 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:

After completing this course, students should be able to:

- Understand the conceptual foundation of a relational model and describe the basic relational terminology.
- Perform essential SQL operations to create, modify, and delete the database.
- Describe the stages of database development and construct an E-R data model to represent various kinds of relationships.
- Translate the E-R data model to database design with the appropriate level of normalization.
- Understand the need for and importance of database administration: concurrency control, security, and backup and recovery.
- Learn the importance of and basic techniques for ensuring DBMS performance, both locally and in the cloud, including distributed databases
 - Learn the basic concepts and types of business intelligence (BI) systems and the relationship between operational and BI systems.

Textbook & Instructional Materials

- Database Concepts (10th Edition), print version ISBN-13: 9780137916788, eBook version ISBN-13: 9780137913817, by Kroenke et al., Pearson Publishing. [Pearson+ subscription](#) is highly recommended for digital features of the textbook.
- Lecture notes and other additional materials will be provided on D2L.
- D2L access to course-related activities. We will use D2L as the primary communication channel for the class.
- In class workbenches require the use of Microsoft Access and MySQL Workbench. Dillard 335 and 306 have the software installed. MySQL is free as an open-source software, you can install [MySQL](#) to work on your own device. Note that Chromebook does NOT support MySQL.
- Online Platforms: Codecademy's interactive lesson of "[Learn SQL](#)," SQL practice platform - [SQL Zoo](#), and database projects on [DataWars](#).
- Only approved Zoom Section students can access the class via the link (<https://msutexas-edu.zoom.us/j/97038802133>). Please **make sure your webcam and microphone work** during the class sessions for questions and answers. In addition, please install all the required software needed on your device.

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
Workbenches and SQL Zoo	30
D2L Chapter Quizzes	15
External Learning Unit (Codecademy and DataWars)	10
Attendance and Participation	5
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

Each exam will consist of multiple-choice and true/false questions, and/or some short answers. Exams will cover assigned chapters, assignments, and any other related exercises.

Assignments

- Workbenches and SQL Zoo: workbenches are assigned to apply database concepts in various chapters. Students are required to finish the workbench (Microsoft ACCESS and/or MySQL Workbench) on time. SQL practice platform - [SQL Zoo](#) is also used for corresponding concepts.
- D2L Chapter Quizzes: there is a D2L quiz for each chapter. Students can make multiple attempts toward the quiz, and the answers are released to students upon each submission.
- External Learning Unit: Codecademy's interactive lesson of "[Learn SQL](#)" and projects on [DataWars](#).

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.

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. For online courses, 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.

Important Dates

- Last day for term schedule changes: Check date on [Academic Calendar](#).
- Deadline to file for graduation: Check date on [Academic Calendar](#).
- Last Day to drop with a grade of "W:" 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.

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](#).

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.

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 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) 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](#).

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@mstuexas.edu.

College Policies

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

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

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.

Week	Day	In Class Topic	Activity Due
1	Tuesday	Introduction and Syllabus	Software Ready: Microsoft ACCESS, MySQL, and Online Platform
	Thursday	Chapter 1: Getting Started	
2	Tuesday	Workbench 1	Workbench 1
	Thursday	Chapter 2: The Relational Model	Chapter Quiz
3	Tuesday	Chapter 2: The Relational Model	
	Thursday	Workbench 2	Workbench 2
4	Tuesday	Chapter 3: Structured Query Language	Chapter Quiz
	Thursday	Chapter 3: Structured Query Language	
5	Tuesday	Workbench 3	Workbench 3
	Thursday	Additional SQL	
6	Tuesday	Additional SQL	Additional SQL
	Thursday	Exam 1 Chapters 1-3	Codecademy, Chapter Quiz
7	Tuesday	Chapter 4: Data Modeling and the Entity-Relationship Model	
	Thursday	Chapter 4: Data Modeling and the Entity-Relationship Model	
8	Tuesday	Workbench 4	Workbench 4
	Thursday	Chapter 5: Database Design	Chapter Quiz
9	Tuesday	Chapter 5: Database Design	
	Thursday	Workbench 5	Workbench 5
10	Tuesday	SQL Zoo Subquery	SQL Zoo
	Thursday	SQL Zoo Join	SQL Zoo

Week	Day	In Class Topic	Activity Due
11	Tuesday	Exam 2 Chapters 4, 5, and SQL	DataWars, Chapter Quiz
	Thursday	Chapter 6: Database Administration and the Cloud	
12	Tuesday	Chapter 6: Database Administration and the Cloud	
	Thursday	Workbench 6	Workbench 6
13	Tuesday	Chapter 7: Business Intelligence Systems, Data Warehouses, and Big Data	Chapter Quiz
	Thursday	Chapter 7: Business Intelligence Systems, Data Warehouses, and Big Data	
14	Tuesday	Workbench 7	Workbench 7
	Thursday	No Class - Holiday	
15	Tuesday	SQL Zoo Using Null and Numeric Function	SQL Zoo
	Thursday	NoSQL, SQL Self Join and Window Function	SQL Zoo, Chapter Quiz
16	Tuesday	Exam 3 Chapters 6 and 7, SQL	DataWars