Course Syllabi

1. *Course number and name*
   COSC 4385: Database Management Concepts

2. *Credits and contact hours*
   3 Credit Hours

3. *Instructor's or course coordinator's name*
   Instructor: Leonard Brown

4. *Textbook, title, author, and year*
   Database Systems: A Practical Approach to Design, Implementation, and Management, 6th edition, Thomas Connolly & Carolyn Begg, Pearson, 2015, ISBN 978-0-13-294326-0.

5. *Specific course information*
   a. *A brief description of the content of the course (catalog description)*
      This course covers information systems design and implementation within a database management system environment. Students will design and construct a system using database software to implement the logical design.

   b. *Prerequisites or co-requisites*
      COSC 2336

   c. *Indicate whether a required, elective, or selected elective course in the program*
      Required course for Computer Science

6. *Specific goals of the course*
   a. *Specific outcomes of instruction, ex. The student will be able to explain the significance of current research about a particular topic.*
      1. Describe the major components of a database management system and explain their role in distinguishing the database approach to the traditional approach of programming with files.
      2. Describe the modeling concepts and notation of the entity-relationship model or other similar conceptual model.

3. Describe the basic principles and define the fundamental terminology of the relational data model.
4. Use the relational algebra to manipulate information in a database
5. Use SQL to perform data definition and data manipulation
6. Implement a relational database from a design expressed using a conceptual model such as the entity relationship model.
7. Describe the benefits of decomposition and apply algorithms that normalize a 1NF relation into a set of 3NF and BCNF relation
8. Use SQL to perform database authorization

9. *Explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course*

Course addresses Student Outcome(s): [a:4, b, c, i, j:7, k:6]

7. *Brief list of topics to be covered*
   - Database Architecture
   - The Entity-Relationship Model
   - Relational Algebra
   - Normalization
   - SQL
   - Database Security
   - Indexing and Hashing

COSC 4385 Database Management Concepts – Spring 2026

General Information

Instructor	Leonard Brown
Office Location	Soules 315.01
Office Hours	Tu/Th 10:00am – 12:00pm, 2:00pm – 3:00pm W 10:00am – 2:00pm (or by appointment)
Phone	(903) 566-7403
Email	lbrown@uttyler.edu
Class Time/Location	TR 3:30pm – 4:50 pm / Soules 207

Exams: There will be two midterm exams and one final exam given for this class. All exams will be held in the class lecture room. The midterm exams will be during the regular class time. The ***tentative*** dates of the exams are:

Exam I	October 13, 2026
Exam II	November 17, 2026
Final Exam	**(See University Schedule)**

You will be notified in advance of any change in the above dates.

Grading: There are several components to the course grade totaling 1000 points. The point distribution is as follows:

Exam I	150 points
Exam II	150 points
Homework Assignments/Project	400 points
Final Examination	300 points

Course grades will be assigned based on the following scale.

900-1000	A
800-899	B
700-799	C
600-699	D
599 and below	F

Late Policies: All homework assignments are due at 11:59 p.m. on the date specified in the assignment. Assignments submitted after the due date (even if it is by one minute) are considered late. There is a 10% penalty for late assignments. Assignments will not be accepted after 48 hours.

Please note that this does not apply to the project. The project will have its own late policy.

Plagiarism: Unless otherwise specified, all work submitted for a grade must be completed by yourself. You are not to submit another person's work and claim it as your own. Plagiarism will result in disciplinary actions. To spare yourself accusations of plagiarism-

1. Do not show another student a copy of your work before it has been graded. The penalties for permitting your work to be copied are the same as the penalties for copying someone else's work.
2. Do not leave printouts of your work where other students may pick them up.

Additional Policies: Syllabus Information

Academic Calendar **Academic Calendar 2026-2027**

Final Exam Schedule **Final Exam Schedule**