

COSC 3385 – Database Design, Spring 2022 Syllabus

Schedule:

Lecture: MW 2:30 PM – 3:55 PM COB 211 and Zoom

Course Description:

This course covers database management system with an emphasis on relational database concepts, data modeling, database design, development and implementation. Students will design and construct a system using database software to implement the logical design. Topics include: introduction of relational database model, database system architecture, database design and modeling, database query using SQL, and an introduction to database administration, database warehouse and cloud services.

Course Prerequisites:

The Object-Oriented Paradigm (COSC 1337)

Required Textbook:

Fundamentals of Database Systems, by Ramez Elmasri and Shamkant B. Navathe, 2016 (7th edition). ISBN-13:978-0133970777. ISBN-10:0133970779

Contact Information:

Instructor: Dr. Yi Li
 Email: yli@uttyler.edu
 Office: COB 315.08
 Office Hour: Monday & Wednesday 10:30 am to 12:00 pm
 Office Hour will be held virtually on Zoom
 Make an appointment via email if you cannot meet during these times

Grading Policy:

Course Grading		Weighted Total	Letter Grade
Midterm Exam	20%	90 – 100%	A
Final Exam	25%	80 – 89.99%	B
Project	30%	70 – 79.99%	C
Assignments	20%	60 – 69.99%	D
Quizzes/Exercises	5%	Below 60%	F

Grading Rules:

There are two (2) necessary conditions for passing this class: 1) **Submission of all Assignments and Projects**, 2) **Attendance** – your final grade will be reduced for unexcused absences. Please refer Attendance Policy section for more detail. Students are responsible for all material covered in lectures, as well as that specifically mentioned as part of the reading assignments. Examinations will heavily emphasize conceptual understanding of the material. No make-up pop quiz will be given.

Tentative Course Schedule:

Week	Dates	Lecture Topics	Chapter
1	01/10, 12	Overview of Databases and Basic Concepts	1 - 2
2	01/19, 21	System Analysis and Database Modeling	2
3	01/24, 26	Entity-Relationship (E-R) Model Advanced E-R Model	3 - 4
4	01/31, 02/02	ER/EER to Relational Model	9
5	02/07, 09	Relational Data Model and Normalization	5, 14
6	02/14, 16	Physical Database Design and SQL	6, 7
7	02/21, 23	SQL cont'd and Exam 1	
8	02/28, 03/02	SQL, cont'd	6, 7
9	03/07, 09	Spring Break, no class	
10	03/14, 16	SQL, cont'd	6, 7
11	03/21, 23	Database System Architectures	23
12	03/28, 30	Transaction, Concurrent Control Techniques	20 - 22
13	04/04, 06	NOSQL, Big Data	24 - 25
14	04/11, 13	Project Work Day	
15	04/18, 20	Project Demo; Final Exam Review	
16	04/25, 27	Final Exam (Date to be determined)	

Course Objectives:

- Learn and apply a systematic process for information system development
- Develop the ability to use the latest tools and techniques to develop information systems
- Create appropriate documents for requirements, functional design, implementation and user training
- Develop an ability to work cooperatively to develop a high-quality information system

Computer Account Access:

Students will need a Patriot account and password for computer access. This information can be found at <http://www.uttyler.edu/ccs>

Course Examinations:

An official one-week notice will be provided preceding each course examination. At least one class period prior to each examination a review guide will be provided, detailing exam format, major topical coverage, problem descriptions and types, etc. Examinations will be graded on as timely a basis as possible with results posted on Canvas. Relevant problems from graded exams will be discussed in a subsequent class. For the remainder of the semester, students are strongly encouraged to talk with the instructor during scheduled online office hours to more fully discuss their examinations.

Missed Assignments and Tests:

Assignments and project will be due before the beginning of classes on their due dates. Points will be deducted for late submissions. A penalty of 20% will be deducted from your score for the first 24-hour period your assignment is late. A penalty of 50% will be deducted from your score for ≥ 24 -hour period. No credit for ≥ 3 days. Weekend days will be counted.

Tests must be taken when scheduled. Make-up exams will be granted at the discretion of the instructor. Make-ups will be given only under extremely unusual circumstances, will be different from exams given during the regular class time and may be discounted by up to 50% of the grade. Permission for a makeup exam must be obtained PRIOR to the regular exam and must include written documentation of the student's absence.

Attendance Policy:

Attendance is a critical factor for student success. We will take attendance for each class. If you attend classes physically, you will need to scan a QR code posted on projector screen using your phone at the beginning of each class to sign your name on a linked google form. If you attend class via Zoom, you just need to have your name correctly shown on your profile. Zoom will generate attendance reports automatically.

Your final grade will be deducted based on the number of classes that you miss. For 1 – 2 absences, no reduction. 3 absences, 2% of your final grade will be deducted. 4 absences = 4%; 5 absences = 6%; 6 absences = 8%; 7 absences = 10%. And having more than 7 absences is considered excessive and the student will be asked to withdraw, or I will no longer grade any assignments and tests. I assume that if you miss a class, you have a very important reason; you do not have to give any explanation. But follow the assignment calendar when you return. I am reasonable and understand true emergencies. Contact me promptly to discuss your absence if you are absent two classes in a row. Prolonged illness or each absence for campus sports team events requires a written excuse from a doctor or coach.

Classroom and Lab Rules:

- Please do not surf the Web during class unless instructed to access the Internet.
- Do not access inappropriate Web sites during class. This will lead to dismissal from the class.
- Please do not work on other computer assignments during class.
- Please do not talk to your neighbor during class.
- Please do not bring food or an uncovered drink into the computer classroom lab.
- Please do not order food to be delivered to the classroom.
- Do not use your phone during class.

TA Information:

Will be updated later on Canvas.

Important Dates:

Date	Day	Description
01/10/2021	Monday	Courses Begin
01/17/2021	Monday	Martin Luther King, Jr. Holiday, no class
01/24/2021	Monday	Census Date
02/01/2021	Tuesday	Registration for Summer 2021 begins
03/01/2021	Tuesday	Final Filing Deadline for Spring 2021 Graduation
03/07 - 03/11		Spring break, no class
03/28/2021	Monday	Last day wot withdraw from 15-Week courses
04/01/2021	Friday	Registration for Fall 2021 begins
04/25/2021	Monday	Study day & Final exam week begins

Test Dates:

Date	Description
02/21 or 2/23	Midterm Exam
TBD*	Final Exam

*Exam is administered based on the Spring 2021 Final Exam Schedule.

Plagiarism:

Plagiarism will result in disciplinary actions. To spare yourself accusations of plagiarism review the following statements: (Adapted from SFSU Department of Computer Science cheating and plagiarism policy)

Plagiarism occurs when a student:

- submits the work of another student representing it a their own.
- allows another student to replicate or submit their work.
- submits code or portions of code with modifications in an effort to make it look original.
- fails to inform the instructor of collaborating with others on code or projects.
- posts assignments on internet sites for solutions.
- submits code found online and modified without proper citation.
- submits code found online with and used verbatim regardless of proper citation.

Plagiarism does not occur when a student

- has permission to collaborate on a program or project and list all collaborators.
- receives guidance from instructors or teaching assistants
- help with errors or provide tips on programming that will help others in the learning process.
- discuss requirements of an assignment and strategies for implementation
- inclusion of code copied form another source when properly cited and specifically allowed by instructor

Important Covid-19 Information:

- Information for Classrooms and Laboratories: Students are expected to wear face masks covering their nose and mouth in public settings (including classrooms and laboratories). The UT Tyler community of Patriots views adoption of these practices consistent with its Honor Code and a sign of good citizenship and respectful care of fellow classmates, faculty, and staff.
- Students who are feeling ill or experiencing symptoms such as sneezing, coughing, or a higher than normal temperature should stay at home and notify their faculty. Students needing additional accommodations may contact the Office of Student Accessibility and Resources at University Center 3150, or call (903) 566-7079 or email saroffice@uttyler.edu.
- Recording of Class Sessions: Class sessions may be recorded by the instructor for use by students enrolled in this course. Recordings that contain personally identifiable information or other information subject to FERPA shall not be shared with individuals not enrolled in this course unless appropriate consent is obtained from all relevant students. Class recordings are reserved only for the use of students enrolled in the course and only for educational purposes. Course recordings should not be shared outside of the course in any form without express permission.