



COSC 5360 Database Design, Spring 2021

Tu 6:00 PM - 8:45 PM @ [Zoom](#) or COB 255

Dr. Lidong Wu | 469-443-8682 | Email: lwu@uttyler.edu
Office Hours: 2:00 PM-3:30 PM Tu/Th or by appointment

General Course Information

Required Texts & Materials	<i>Fundamentals of Database Systems</i> , by Ramez Elmasri and Shamkant B. Navathe, 2016 (7 th edition). ISBN-13: 978-0133970777. ISBN-10: 0133970779																																																																				
Required Device	Computer. Windows or iOS computer with speaker, a microphone and Webcams (Note: Webcams are required for remote presentations.) Reliable Internet Access.																																																																				
Pre-requisites	COSC 2315 and COSC 2336 or equivalents.																																																																				
Course Description	This course introduces the fundamental concepts necessary for database systems and design. It covers relational, hierarchical, and logical database models. Topics include database system architecture, the relational model and algebra, the SQL database language, conceptual data modeling, advanced data modeling concepts, functional dependencies, basic normalization, and concurrent control techniques.																																																																				
Tentative Course Schedule	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #4F81BD; color: white;"> <th>Week</th> <th>Dates</th> <th>Lecture Topics</th> <th>Chapter</th> </tr> </thead> <tbody> <tr><td>1</td><td>1/12</td><td>1. Overview of Databases and Basic Concepts</td><td>1-2</td></tr> <tr><td>2</td><td>1/19</td><td>2. Review of Major DB Concepts</td><td>2</td></tr> <tr><td>3</td><td>1/26</td><td>3. Conceptual Modeling</td><td>3</td></tr> <tr><td>4</td><td>2/2</td><td>4. ER/EER Model</td><td>3-4</td></tr> <tr><td>5</td><td>2/9</td><td>5. ER/EER Mapping</td><td>9</td></tr> <tr><td>6</td><td>2/16</td><td>6. Relational Data Model; Relational Algebra Exam I Review</td><td>5, 8</td></tr> <tr><td>7</td><td>2/23</td><td style="color: red;">Exam I</td><td></td></tr> <tr><td>8</td><td>3/2</td><td>7. Relational Algebra</td><td>8</td></tr> <tr><td>9</td><td style="background-color: cyan;">3/9</td><td style="background-color: cyan;">Spring Break</td><td></td></tr> <tr><td>10</td><td>3/16</td><td>8. SQL</td><td>6</td></tr> <tr><td>11</td><td>3/23</td><td>9. SQL, cont'd</td><td>7</td></tr> <tr><td>12</td><td>3/30</td><td>10. Normalization</td><td>14</td></tr> <tr><td>13</td><td>4/6</td><td>11. Query Processing and Optimization</td><td>18-19</td></tr> <tr><td>14</td><td>4/13</td><td>12. Concurrent Control Techniques</td><td>21-22</td></tr> <tr><td>15</td><td>4/20</td><td>Project Demo; Exam II Review</td><td></td></tr> <tr><td>16</td><td>4/27</td><td style="color: red;">Exam II</td><td></td></tr> </tbody> </table>	Week	Dates	Lecture Topics	Chapter	1	1/12	1. Overview of Databases and Basic Concepts	1-2	2	1/19	2. Review of Major DB Concepts	2	3	1/26	3. Conceptual Modeling	3	4	2/2	4. ER/EER Model	3-4	5	2/9	5. ER/EER Mapping	9	6	2/16	6. Relational Data Model; Relational Algebra Exam I Review	5, 8	7	2/23	Exam I		8	3/2	7. Relational Algebra	8	9	3/9	Spring Break		10	3/16	8. SQL	6	11	3/23	9. SQL, cont'd	7	12	3/30	10. Normalization	14	13	4/6	11. Query Processing and Optimization	18-19	14	4/13	12. Concurrent Control Techniques	21-22	15	4/20	Project Demo; Exam II Review		16	4/27	Exam II	
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Grading Policy

Weighting Scheme	Exam I - 20%, Exam II - 20%, Project - 40%, Homeworks - 10%, Quiz - 10%.	90-100% A 80-89.99% B 70-79.99% C Below 70% F
Rules	There are two (2) necessary conditions for passing this class: 1) Submission of all Assignments and Projects , 2) scoring $\geq 50\%$ on the final examination. 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 quizzes will be given	

Course Policies

- Assignments should be turned in no later than the deadline. Turn in what is completed by the deadline for partial credit. **No late submissions will be accepted.**
- **Any indication of cheating and/or plagiarism on a(n) assignment/project will be an automatic 0 (zero) for the assignment/project for all students involved. Solutions copied from the internet, instructor's manual, etc. will also be given zero credit.** If you have questions about the line between assistance and cheating, discuss it with the instructor. For examples of Scholastic Dishonesty, please visit Section 8-802 of the [Manual of Policy and Procedures](#).

Important Covid-19 Information for Classrooms and Laboratories

- Students are required to wear face masks covering their nose and mouth, and follow social distancing guidelines, at all times in public settings (including classrooms and laboratories), as specified by [Procedures for Fall 2020 Return to Normal Operations](#). 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 will be excused from class and should stay at home and may join the class remotely. Students who have difficulty adhering to the Covid-19 safety policies for health reasons are also encouraged to join the class remotely. 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.

Additional Policies: <http://www.uttyler.edu/academicaffairs/files/syllabuspolicy.pdf>

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