

CST280 Database I

(3 credit hours)

Course Syllabus

Course Description

This course addresses technologies for developing database applications. It covers the principles of database design, and database models using a database software. Organizational data modeling and designing normalized database structures is strongly emphasized. Managerial issues associated with database administration are covered along with an introduction to distributed database concepts in a client-server environment. The course will expose the student to the Structured Query Language (SQL)

Course Learning Outcomes

By the end of this course, you will be able to:

1. Identify foundational concepts for developing relational database applications
2. Practice organizational data modeling and design normalized database structures
3. Apply principles of relational database design and models using a Database Software
4. Create and apply database basics
5. Interpret managerial concepts associated with database administration
6. Investigate distributed database concepts in a Client-Server Environment

Required Textbook(s) and Resources

Coronel, C., & Morris, S. (2019). Database systems: Design, implementation, and management (13th ed.). Cengage Learning.

Be sure to also review the weekly **Explore** sections for additional library or web resources. For access to databases, research help, and writing tips, visit the [Tiffin University Library](#).

Time Commitment

Effective time management is possibly the single most critical element to your academic success. To do well in this online class you should plan your time wisely to maximize your learning through the completion of readings, discussions, and assignments. Because of our accelerated, seven-week term, TU online courses are designed with the expectation that you

dedicate a little over **six (6)** hours per credit hour to course activities and preparation **each week**. For example, for successful completion of a three-credit, seven-week online course you should reserve roughly **twenty (20) hours per week**.

To help plan your time and keep on track toward successful course completion, note the distinctive rhythm of assignment due dates:

1. All times assume Eastern Time (GMT-4).
2. Weeks begin at 12:00 a.m. ET on Monday and end at 11:55 p.m. ET on Sunday.
3. Unless otherwise noted, initial assignments or discussion posts are due by **11:55 p.m. ET on Wednesdays**.
4. Additional assignments or follow-up discussion posts are due by **11:55 p.m. ET on Saturdays, and**
5. Major assignments and reflections are typically due by **11:55 p.m. ET on Sundays**.

Learning Activities

Assessment for CST280 relies on one or two activities each week. In weeks 1-5, you will complete hands-on database activities. In the final two weeks, you will write a business memo and prepare a presentation (with peer critique).

Grading

The chart below identifies the individual contributions from each type of activity, per week.

Activity	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Database Activities	100	100 100	100	200	200	--	--	800
Peer Review	--	--	--	--	--	25	--	25
Business Memo	--	--	--	--	--	--	100	100
Presentation	--	--	--	--	--	75	--	75
Total	100	200	100	200	200	100	100	1000

Grading Scale

A: 90-100% | B: 80-89% | C: 70-79% | D: 60-69% | F: <60%

Course Outline and Weekly Checklist

Topic	Learning Activities (Due by 11:55 p.m. ET on day designated)
Start Here	<input type="checkbox"/> MON: Activity 1.1: Driving Force (introductory Forum)
Week 1: Database Concepts	<input type="checkbox"/> WED: Optional Responses to Activity 1.1 <input type="checkbox"/> SUN: Activity 1.2: Real Life Examples
Week 2: Design Concepts (Part 1)	<input type="checkbox"/> WED: Activity 2.1: Database Design <input type="checkbox"/> SUN: Activity 2.2: ER diagram
Week 3: Design Concepts (Part 2)	<input type="checkbox"/> WED: Activity 3.1: Design and Create Database Using MySQL (Mod 5) <input type="checkbox"/> SUN: Activity 3.1: Design and Create Database Using MySQL (Mod 6)
Week 4: Introduction to Structured Query Language (SQL)	<input type="checkbox"/> WED: Preview Activity 4.1 <input type="checkbox"/> SUN: Activity 4.1: SQL, Part 1
Week 5: Advanced Design and Implementation	<input type="checkbox"/> WED: Preview Activity 5.1 <input type="checkbox"/> SUN: Activity 5.1: SQL, Part 2
Week 6: Advanced Database Concepts (Part 1)	<input type="checkbox"/> WED: Activity 6.1 (Forum): New Ideas for Using Big Data and Business Intelligence Analysis <input type="checkbox"/> SAT: Activity 6.1 (Forum): Peer Critiques / Review <input type="checkbox"/> SUN: Activity 6.2: Big Data and Business Intelligence Analysis (Presentation)
Week 7: Advanced Database Concepts (Part 2)	<input type="checkbox"/> FRI: Activity 7.1: Database Administration (Business Memo)

Tips for Success

Online learning requires self-discipline and self-direction. As seekers of the truth, we should be willing to challenge one another's academic work in a spirit of respectful comradery. Your course is a place for you to grow as you benefit from the expertise, experience, and diverse

perspectives of your instructor and peers. Constructive feedback will challenge you to stretch your own thinking, thereby expanding your knowledge and understanding.

To get the most out of your learning experience, you should actively engage (participate) in **ALL** course activities. Course elements are arranged chronologically. To complete a week, simply work your way "down the page" through all of the course materials and activities.

Your Instructor Will Expect You to:

For More Information:

Be sure to review the [Support, Policies, and Procedures](#) addendum.