CSCE 4350 Introduction to Database Systems Design

Course Syllabus

Instructor	Saqib Khalil
Office	NA
Email	saqib.khalil@unt.edu
Office Hours	By appointment or before/after class
Teaching Assistant	NA
TA Office Hours	NA

Class Meeting Time & Place	M 6 – 8:50 PM, FRSC 129
Web	http://unt.instructure.com The class materials are available on Canvas
Textbook	Lecture Notes, Slides, and Online Resources

Topics

This course covers topics including logical and physical database system organization, logical models, design issues, and secondary storage considerations. Students develop and practice skills through the use of projects and real world database creation.

Prerequisites: CSCE 2100 (or equivalent). This pre-requisite is enforced.

Course Outcomes

- Analyze a problem to determine its data requirements.
- Create a database that satisfies the given data requirements.
- Store, maintain and access data in a database using SQL.
- Understand and demonstrate how B+ trees and hashing speed data access.
- Understand and use the theory of functional dependencies for DB design.

Evaluation

Homework: There will be regular homework assignments. Homework is to be completed individually unless specified otherwise.

No late homework, projects, exams, quizzes or assignments of any kind are accepted unless there is a verifiable emergency situation. No exceptions.

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Approximate Course Grading (subject to change)

Homework	30%
Project	20%
Midterm	20%
Final	25%
Class Participation	5%

The final course grade will be based on the following scale:

90 – 100 A 80 – 89 B 70 – 79 C 60 – 69 D Below 60 F

Tentative Lecture Schedule

Meeting	Topics
1	Introduction and Tools
2	Relational Data Model
3	SQL
4	SQL
5	Relational Algebra
6	Midterm
7	Relational Database Design
8	Relational Database Design
9	Access Method
10	XML
11	Transactions
12	Concurrency Control and Recovery
13	Big Data Management
14	Data Warehousing and Mining
15	Project Presentations

Course Policies

- The Department of Computer Science cheating policy will be followed. Any student caught cheating will receive an automatic F for the course and further disciplinary action may be taken. This will include those who violate the rules, as well as those who permit such actions.
- Students are expected to do their own work on homework/programming assignments. I encourage everyone in the class to discuss the assignments. However, any work/code turned in must be your own.
- All exams including the final will be given only once. If one regular exam is missed WITH AN EXCUSED ABSENCE, the comprehensive final will replace this grade. Only one regular exam grade can be replaced in this way. If more than one regular exam is missed, the second missed exam will be given a grade of 0. The final exam must be taken or a 0 will be given for the final exam.
- Homework assignments must be turned in on time for full credit (on the due date). No assignments may be turned in late.

Americans with Disabilities Act

The Computer Science Department cooperates with the Office of Disability Accommodation to make reasonable accommodations for qualified students (cf. Americans with Disabilities Act and Section 504, Rehabilitation Act) with disabilities. If you have not registered with ODA, we encourage you to do so. If you have a disability for which you require accommodation please discuss your needs with the instructor or submit a written Accommodation Request on or before the fourth class day.