CSCE 4350.001 – INTRODUCTION TO DATABASE SYSTEMS DESIGN (Fall 2010)

Instructor : Dr. JungHwan Oh
E-mail : jhoh@cse.unt.edu, Phone : (940) 369-7790, Office : NTRP F274

Class Web : http://www.cse.unt.edu/~jhoh/

Text : Database System Concepts. Sixth Edition, by A. Silberschatz, H. E. Korth, and S. Sudarshan.

Pre-Requisites : CSCE 3110 (DATA STRUCTURES AND ALGORITHMS) or equivalent. Students must:

- Be familiar with data structure concepts and algorithms (such as trees, sorting, hashing, …)
- Be familiar with at least one high-level programming language such as C, C++ or Java.

Students without adequate preparation are at substantial risk of failing this course.

Description : Logical and physical database system organization; logical models; design issues; secondary storage considerations.

Objectives: 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+-tree and hashing speed data access, Understand and use the theory of functional dependencies for DB design.

Grading :

Assignments	10 %	Mid-term Exam	30 %
Final Exam	30 %	Project	20 %
Attendance	10 %		

Final grades will be assigned according to the following scale:
A (score >= 90), B (90 > score >= 80), C (80 > score >= 70), D (70 > score >= 60).

Assignments: There will be several assignments. The due date for each assignment is one week from the date it is assigned. **No late submission accepted.** Details will be given out in class and published on the course web page.

Exams: Exams are closed book unless noted otherwise. The final exam will NOT be comprehensive. The final exam will be given at the scheduled time. No final exams will be given at other times.

Project: There will be a course project involving the design, implementation, population, and querying of a small database, using a relational database management system. The project is an important part of this course. There will be progress reports due during the term and a final report at the end of the term. Finally, there will a presentation for each project in the class. **No late submission accepted.** Details will be given out in class and published on the course web page.

Policy :

1. **No make up exams (before or after) will be given. Equitable arrangements will be made for those with a university-approved excuse.**
2. **Copying, cheating, collusion and other forms of dishonesty will be handled according to the university's rules. Cheating is attempting to get credit for work that someone else has done. The penalty for cheating is a failing grade and perhaps other disciplinary action.**
3. **No incomplete grade will be given, No extra work after Final, and No grading question by email.**
4. **If you bring a cell phone to class, make sure it is turned off. Do not be late to class. If you arrive late, please enter quietly and sit down. Do not walk in front of speakers or disrupt the class in any other way. Do not leave class early unless you have gotten permission before class starts. We will all treat each other with courtesy and respect.**

Extra Help: PLEASE DO NOT WAIT UNTIL THE LAST MINUTE. If you are having trouble with this class, please come by my office during office hours, or you can email me.

"The Student Evaluation of Teaching Effectiveness (SETE) is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider the SETE to be an important part of your participation in this class."

Disabilities Accommodation: The University of North Texas complies with Section 504 of the 1973 Rehabilitation Act and with the Americans with Disabilities Act of 1990. The University of North Texas provides academic adjustments and auxiliary aids to individuals with disabilities, as defined under the law. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring accommodation, please see the instructor and/or contact the Office of Disability Accommodation at 940-565-4323 during the first week of class.

Acceptable Student Behavior:

Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Center for Student Rights and Responsibilities to consider whether the student's conduct violated the Code of Student Conduct. The university's expectations for student conduct apply to all instructional forums, including university and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at www.unt.edu/csrr

This Class meets Tuesday and Thursday	**Topic**	**Book Chapter**
Class Meeting 1	Introduction	Ch. 1
Class Meeting 2	Introduction to the Relational Model	Ch. 2
Class Meeting 3	Introduction to SQL	Ch. 3
Class Meeting 4	Introduction to SQL	Ch. 3
Class Meeting 5	Introduction to SQL	Ch. 3
Class Meeting 6	Intermediate SQL	Ch. 4
Class Meeting 7	Intermediate SQL	Ch. 4
Class Meeting 8	Formal Relational Query Languages	Ch. 6
Class Meeting 9	Formal Relational Query Languages	Ch. 6
Class Meeting 10	Database Design and E-R Model	Ch. 7
Class Meeting 11	Database Design and E-R Model	Ch. 7
Class Meeting 12	Database Design and E-R Model	Ch. 7
Class Meeting 13	Relational Database Design	Ch. 8
Class Meeting 14	Relational Database Design	Ch. 8
Class Meeting 15	Relational Database Design, and Review	Ch. 8
Class Meeting 16	Mid-term exam	
Class Meeting 17	Relational Database Design	Ch. 8
Class Meeting 18	Indexing and Hashing	Ch. 11
Class Meeting 19	Indexing and Hashing	Ch. 11
Class Meeting 20	Indexing and Hashing	Ch. 11
Class Meeting 21	Indexing and Hashing	Ch. 11
Class Meeting 22	Transactions	Ch. 14
Class Meeting 23	Concurrency Control	Ch. 15
Class Meeting 24	Concurrency Control	Ch. 15
Class Meeting 25	Concurrency Control	Ch. 15
Class Meeting 26	Recovery System	Ch. 16
Class Meeting 27	Recovery System	Ch. 16
Class Meeting 28	Recovery System, and Review	Ch. 16
Class Meeting 29	Project Presentation	
Class Meeting 30	Project Presentation	
Class Meeting 31	Final exam	