UNIVERSITY OF NORTH CAROLINA AT GREENSBORO
DEPARTMENT OF COMPUTER SCIENCE
CSC 671: Advanced Database Systems
Fall 2010
SYLLABUS

Instructor: Fereidoon (Fred) Sadri
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Office Hours: Tuesdays 10:50 to 11:30
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by: Silberschatz, Korth, and Sudrashan
McGraw-Hill

Other Good Books:
Database Systems: The Complete Book
by: Garcia-Molina, Ullman, Widom
Prentice Hall

Database Management Systems
By: Ramakrishnan and Gehrke
McGraw-Hill

COURSE CONTENTS:
• Introduction.
• Relational databases.
• Query languages for relational databases: SQL, Relational Algebra.
• The Entity-Relationship model.
• Relational database design: Data dependencies, and decomposition theory.
• Extensible Markup Language (XML), Document Type Definition (DTD), XML Schema.
• Query languages for XML: XPath, XQuery.
• Selected Topics (Time Permitting): Information integration, modeling uncertain information, and the Semantic Web.

STUDENT LEARNING OUTCOMES: At the end of this course students will be able to
• Use a commercial database system effectively (create tables, add and modify data, and query the database).
• Design a database system for a given application.
• Our project provides hands-on experience with database design and implementation, including database access through a web interface.
GRADING SCHEME:

Homeworks and quizzes: 15%
Project: 20%
Test 1: 20%
Test 2: 20%
Test 3: 25%

TEST DATES:
(If UNCG is closed on Thu. Dec. 2, 2010 due to inclement weather or any other reason, make-up date for Test 3 is Tue. Dec. 7, 2010)

NOTES:

• Closure of university facilities and classrooms in response to flu outbreak or other emergency does not mean that this class is halted. Students should check their emails and course web page for announcements about how the class will proceed in the event of such an emergency.

• The grade you will receive in this course is a function of your numerical marks in the assignments, project, tests AND the overall performance of all students in the course. The marks will be “normalized” to assess a student’s performance. A rough guideline is as follows: 90% to 100%, A; 80% to 89%, B; 70% to 79% C; below 70%, F.

• Students should be present for all tests. No make-up tests will be given.

• I often use email to communicate with you. I will only use your UNCG email addresses. Please make sure to check your messages regularly. If you normally use a different email address, it is your responsibility to forward your UNCG messages to that address.

• You are encouraged to seek information in other books or on the web. BUT you must cite the source if you use any material from other books or the web (for example, in your homework). Otherwise it is considered cheating.

• You are all expected to attend other students presentations.

• Homeworks are due in class.

• A penalty of 20% (of the total homework mark) per day will be levied for late assignments. Late submission of a homework is accepted until it is discussed in class. You are encouraged to turn in homeworks even if you have lost all of its mark due to penalty.

• Computers do break down. In fact they often break down at the worst time. It is your responsibility to be prepared for such accidents, and still meet the deadline for your projects and hands-on assignments. Also note that the labs get very busy at the end of the semester.

• It is a good idea to retain a copy of your works until you receive your final grade for the course.

• Please back up all your computer work.

• Some topics from the text or references will be designated as “reading assignments”. You are responsible to read these topics on your own, and ask questions during my office hours if there are any parts that need clarification.

• Academic Integrity Policy will be strictly enforced.