

CS 4611
Database Management Systems
Spring Semester 2012

Instructor

Dr. Donald B. Crouch
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Teaching Assistants

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Office

333 Heller Hall

Office Hours

TTh 10:45 - 11:30 [Other times by appointment]

Course Description

(4 cr. prereq CS 2511, CS 2521, or #)

Study of database management fundamentals focusing on the relational data model. Topics include database organization, file organization, query processing, concurrency control, recovery, data integrity, optimization, and view implementation.

Required Textbook

Abraham Silberschatz, et. al. *Database System Concepts, 6th Edition*, McGraw Hill, 2011.

Course Goals

The purpose of this course is to introduce you to the fundamental concepts underlying database system design, including not only the design of applications using databases but also the implementation techniques used in database systems. The amount of material that we hope to cover may make this course a rather intensive one for a one semester course; be prepared for the course load. We will attempt to cover 20 chapters either in lecture or lab sessions, including Chapters 1-16 and perhaps 20-23. The course will be supplemented by assignments involving coding and executing SQL queries, creating database applications, and building graphical interfaces to databases.

Tools

We will use the Oracle relational database management system running under Unix. We have installed software and various databases on laptops that will be available to you in the lab. You may install the software on your own PC if you so desire. Instructions will be provided for doing this.

Class Schedule

Lectures on Tuesday/Thursday from 9:30-10:45. Labs will be held on Wednesday evenings, 4:00-5:50, in HH 306. Lab attendance is mandatory. No classes or lab will be held the week of March 11. During the laboratory session, the teaching assistant will introduce you to the use of various features of the lab's software tools and will discuss that week's lab assignment. You will then have 1½ or so hours to complete or at least get a good start on the lab assignment that evening. Although most labs can be done during the two-hour period, the lab will be regularly opened and staffed by your TA for several additional hours during the week so that you can work and/or get assistance on your lab and homework assignments as needed. Times will be announced later.

Final Exam Date

4:00-5:55, May 8 (Tuesday)

Grading Basis

Assignments		
Laboratory/Homework	40%	
Midterms (2) & Final	60%	

Grading Scale

93-100	A	77-79	C+
90-92	A-	73-76	C
87-89	B+	70-72	C-
83-86	B	67-69	D+
80-83	B-	60-69	D
		<60	F

Student Responsibilities

You are responsible for what is covered in class and lab, including

- lecture material
- obtaining assignments and handouts
- turning in assignments
- tests.

If you are unable to attend a class meeting, it is **your** responsibility to obtain class notes, assignments, and copies of handouts from other students in the class. If, due to **extremely unusual circumstances**, you are unable to take a test at the scheduled time, the test may be rescheduled. It is your responsibility to gain permission to miss a scheduled test from the instructor at least 24 hours in advance of the time the test is scheduled to be given in class; otherwise, a grade of 0 will be assigned for the test score. All assignments are due at the beginning of class on the due date and must be submitted in the class – not to the TA or instructor outside the class period. **No credit will be given for late work.**

Disabled Students

Individuals who have any disability, either permanent or temporary that might affect their ability to perform in this class are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.

Student Academic Integrity Policy

Academic dishonesty tarnishes UMD's reputation and discredits the accomplishments of students. UMD is committed to providing students every possible opportunity to grow in mind and spirit. This pledge can only be redeemed in an environment of trust, honesty, and fairness. As a result, academic dishonesty is regarded as a serious offense by all members of the academic community. In keeping with this ideal, this course will adhere to UMD's Student Academic Integrity Policy, which can be found at www.d.umn.edu/assl/conduct/integrity. This policy sanctions students engaging in academic dishonesty with penalties up to and including expulsion from the university for repeat offenders.

Student Conduct Code

The instructor will enforce and students are expected to follow the University's Student Conduct Code (<http://www.d.umn.edu/assl/conduct/code>). Appropriate classroom conduct promotes an environment of academic achievement and integrity. Disruptive classroom behavior that substantially or repeatedly interrupts either the instructor's ability to teach, or student learning, is prohibited. Disruptive behavior includes inappropriate use of technology in the classroom. Examples include ringing cell phones, text-messaging, watching videos, playing computer games, doing email, or surfing the Internet on your computer instead of note-taking or other instructor-sanctioned activities.