Computer Science 455
Introduction to Database Systems
Tue/Thur 11:00 – 12:20

Instructor:	Dr. Stephen Hughes
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Office Hours:	Pre/ Post Class

COURSE DESCRIPTION

This course offers a study of the concepts and structures necessary to design and implement a database management system. Students review the current literature concerning database technology and design and implement a simple database system with limited functions.

COURSE CONTENT

Text
Database Systems – Design, Implementation and Management, Eighth Edition by Peter Rob and Carlos Coronel, Thomson Course Technology 2009.

Grading

10% Quizzes – Short quizzes will be given regularly to assess your progress in the course.   These are designed to ensure that you are keeping up with the pace of the class and to give you a sense of the level of mastery that is expected. Quizzes will generally be given every other week; however you should be prepared for each class.   No make-up quizzes will be offered. The lowest quiz score will be dropped from your final grade.

45% Exams – There will be two midterm exams (10% each) and a comprehensive final exam (15%).   Tentative exam dates (subject to change with at least one week's notice.)

Exam Dates:	Test #1	Tuesday Feb 17
	Test #2	Thurs Apr 2
	Final Exam	Monday May 5 (2:00)

25% Assignments – There will be several practice-based assignments that will be given over the course of the semester.   These will often involve either a minor programming task or a brief written composition.

20% Final Project – You will work in groups to experience the entire design process on a complete database system. This will require your group to select application area, and perform a requirements analysis, design the database structures, implement a prototype and present the final design to the class..

Participation – Oral communication is a vital skill for computer scientists.   One must be in constant communication with the user base to ensure that needs are being met and that design decisions are acceptable.   You will regularly be asked to explain your ideas to the class, solicit feedback and accept criticism.

	$87 \leq$ B+ < 90	$77 \leq$ C+ < 80	$67 \leq$ D+ < 70	
$93 \leq$ A	$83 \leq$ B < 87	$73 \leq$ C < 77	$63 \leq$ D < 67	F < 60
$90 \leq$ A- < 93	$80 \leq$ B- < 83	$70 \leq$ C- < 73	$60 \leq$ D- < 63	

COURSE TOPICS AND TENTATIVE SCHEDULE

The course should cover the following topics in roughly this order.

Sections in text	Topic
Chap 1	Introduction and Motivation
Chap 2	Data Models
Chap 3	The Relational Model
Chap 7	SQL
Chap 8	Advanced SQL
Chap 4	ER Modeling
Chap 5	Normalization of Database Tables
Chap 9	Database Design
Chap 10	Transaction and Currency Control
Chap 12	Distributes Database Management
Chap 14	Database Connectivity and Web Technologies
Chap 13	Data Warehouses
Chap 15	Database Administration and Security

COURSE POLICIES

Attendance Policy
Class attendance is vital to your success in this course; material covered during missed sessions is the responsibility of the student. Conversations held in class illuminate the published class materials and are subject to evaluation on subsequent tests and quizzes. Moreover, quizzes and in-class assignments are not available for make-up.

Late Assignments
I understand that circumstances conspire against us all, and occasionally, deadlines cannot be met. If you need to hand in an assignment late, you must contact me via e-mail 24 hours in advance of the due date to *negotiate* a new submission date. Any late submission without prior approval will be penalized 10% per day. Electronic "glitches" do not waive your responsibility to submit your work in a timely manner.

Office Hours
Office hours are an opportunity for you to clarify details you may have missed in class. If you come to office hours with a problem on the assignment, you should come prepared to answer questions, as well as asking them. You also should come prepared with access to an electronic version of your work.

Academic Integrity
Honesty and integrity are qualities we value in ourselves and in others. Therefore, you are expected to be fully aware of your responsibility to maintain the highest degree of integrity in all of your work.   It is accepted that you have read and understood the standards for academic integrity at Coe College.

In the electronic age, source code and other materials are often available on the Internet or through CD-ROMs that supplement textbooks. If you use materials from any other source, you are required to cite the source by adding comments to the top of your files.   At no time should there be an electronic transfer of class-related materials between students. You should also be aware that much of your work will be done in a public computer lab.   You are responsible for keeping your work confidential. This includes logging out of your account when you are finished working on a terminal and making sure that print-outs of your code are not left behind.

By submitting work under your name, you are indicating that **you** have completed the assignment. This means that you should be able to completely explain all the details of your work, i.e. every line of code in computer programs. Failure to be able to account for your decisions (to my satisfaction) will result sanctions described in the Coe College handbook.

Electronic Devices
Cell phones and pagers must be *turned off* prior to entering the classroom or lab.

The use of any electronic device during a quiz or exam is strictly prohibited. This includes PalmPilots, Pocket PCs, and Blackberrys. Any use of such device during a quiz or exam will be considered a breach of academic integrity. Basic handheld calculators may be used on certain quizzes and exams only when announced by the instructor.

Special Services
If you are on record with the College's Special Services as having special academic or physical needs requiring accommodations, please meet with me during my regular office hours or schedule an appointment as soon as possible. We need to discuss any accommodations before they can be implemented. Also, please note that you must make arrangements for extended time on exams and testing in a semi-private setting at least one week before *every* exam.

End of Course
This course officially ends with the scheduled Final Exam session.   No work for this class will be accepted beyond that point.