The University of Illinois at Chicago

College of Business Administration

College of Business Administration Information and Decision Sciences Dept.

IDS410: Business Computer Technology

Summer 2002: 11:00AM to 1:30PM, T and TH

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Prof. Aris M. Ouksel, UH2411,
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Office Hours: 2:00pm to 3:00pm on Tuesdays and Thursdays
TA: Yun Wan, ywan1@uic.edu

Course description: Computer software techniques used in business with emphasis on information management and database management systems. Data management and analysis. Major types of database management systems, query languages.

Textbook: Fred R. McFadden, Jeffrey A. Hoffer, and Mary B. Prescott "Modern Database Management", Addison Wesley, Sixth Edition, 2002.

References: R. Sunderraman, "ORACLE Programming: A Primer", Addison Wesley, 1999.

C. J. Date, "An Introduction to Database Systems", Addison Wesley, Seventh Edition

Goals: This course is designed to introduce advanced undergraduate and graduate to the fundamentals, design, and implementation of database processing. The emphasis will be on planning, designing and implementing the database rather than on database theory.

Course Objectives:

a. To understand the role of databases in organizations and the role of database development within the systems development life cycle.
b. To introduce a conceptual data modeling with the entity-relationship model and enhanced entity-relationship model.
c. To understand the process of converting a conceptual data model to the relational data model in the logical database design phase; and to learn the steps necessary to achieve an efficient database design in the physical database design phase.
d. To introduce Structured Query Language (SQL-92) and Query-by-Example (QBE).
e. To introduce the concept of web-database connectivity.

Prerequisites: IDS100, IDS201 or Consent of the instructor..

Assignments:

There will be three group assignments and one term group project.

For the term project, students will form groups of at least three and no more than four students. With a majority vote, a free rider can be dismissed from a group within two weeks after the assigned date. The dismissed student can in turn join another group, if this is acceptable to the group, or do the project alone, but a group participation penalty of 5 to 10 points will be assessed. The project requirements and expectations will be clarified on the assignment.

Grading: Assignments are graded on a 100 pts basis. The points will be distributed as follows:

Exams and Homeworks	Percentage of total	Dates
Test I	20	06/20
Test II	20	07/09
Test III	20	07/23
Homeworks	15 (5, 5, 5)	See schedule for due dates

Students will be required to hand in their homeworks and projects at midnight on the due date through CourseInfo following the schedule given below. Late homeworks (unless authorized explicitly and for good reason by the instructor) will not be accepted and a grade 0 will be assigned. Students may be randomly asked to present their homework solutions or discuss review questions in class. The presentation as well as the substance of the answers will affect the individual grade.

Final grades:

The final grades will be awarded using a curve. However, I will exercise my judgment as to the cut points. In particular, no A will be given below a total of 90pts, no B below 80pts, no C below 70 pts, and no D below 50pts.

Makeups:

No makeup exam will be given unless the student provides a good, verifiable reason for being unable to attend the exam. Note that I will be very intransigent in this matter and will make sure that the reason provided is indeed verified.

Incomplete grades:

Incomplete grades are given only if a student has completed most of the course work, e.g., 80%, and also has a good, verifiable reason for being unable to complete the remainder. Students who miss large parts of a course for good reason and must make up a great deal of the course should drop and start over.

Two week drop rule:

All courses in the College of Business Administration are subject to the Atwo week drop≅ rule. After two weeks a student may drop a course only by petition, and such petitions are approved only in extenuating circumstances. This applies to all students, even if they are enrolled in LAS or any other college.

Tentative list of topics: Material covered follows the presentation in the book. Note that there may changes in the schedule. Depending on the level of comprehension of concepts, some topics may require additional presentation time. As a result some of the later topics may be truncated or omitted.

Tentative outline:

Date	Subject	Reading Assignments
Week 1-1	Database environment	Chapter 1
06/04	Database development Process	Chapter 2
Week 1-2	Entity-Relationship Model	Chapter 3
06/06	Enhanced E-R model	Chapter 4
	Hwk#1 (06/06, due 06/17)	
Week 2-1	Logical database design	Chapter 5
06/11	and the relational model	
Week 2-2	Logical database design	Chapter 5 (continued)
06/13		
	Teams (must be formed and the lists submitted to the TA and copied to the instructor before the 14th at midnight)	
Week 3-1	Logical database design	Chapter 5 (continued)
06/18	Reviews for Test I	
Week 3-2	Logical database design	Chapter 5 (continued)
06/20	**Test I (Thursday): Chapter 1 to Chapter 6 (part covered)**	
Week 4-1	Physical database design	Chapter 6
06/25	**Hwk#2 (06/25, due 07/02)**	
Week 4-2	SQL and Advanced SQL	Chapters 7 and 8
06/27	**Project Assignment (06/27, Due 07/23)**	

Week 5-1	Lab: Introduction to Oracle and account assignment	
07/02	Oracle SQL: Building Tables and Query Processing	
Week 6-1	Lab: Oracle SQL	
07/09	Build tables for Project	
	Test II: Chapters 5, 6, 7, 8	
Week 6-1	Client Server Environment	Chapter 9
07/11	The Internet Database Environment	Lecture notes
	HTML basic (forms & tables)	
	Discussion of the project	
	Hwk#3 (07/13, due 07/18)	
Week 7-1	Database access via Internet	Lecture notes
07/16	Using Active Server Pages	
	Discussion of the project	
Week 7-2	Database access via Internet	Lecture Notes
07/18	(continued).	
Week 8-1	**Test III: Chap 9, Database Access via Internet**	
07/23		
Week 8-2	Project due	
07/24	**(at midnight on the 24th through DigitalInfo. Delays are not permitted)**	

Acquired Knowledge:
Upon completion of this course, the student is expected to have an understanding of database analysis using entity-relationship modeling and enhanced entity-relationship modeling. In addition, the student is expected to understand how to map the conceptual data model into a relational data model during the logical database design and then implement this relational model into a specific database management system during the physical database design. Moreover, the student is also expected to understand the concept of web-database connectivity, which is a foundation for electronic-commerce applications.