

MSIS 4013: Database Management Spring semester 2008

Sections: . MSIS 4013.001 T,TH 10:30-11:45 CLB 307
Instructor: Dr. Ali Amiri
E-mail: amiri@okstate.edu
Homepage: <http://oc.okstate.edu>
Office: 210 College of Business Administration
Office hours: 11:45-12:45 T,TH and by appointment
Phone: 744 -8649
Textbooks: . Modern Database Management, by Hoffer, Prescott and McFadden, 8th Edition. 2005. Prentice Hall. ISBN: 0-13-145320-3.
. Database-Driven WebSites, by Mike Morrison and Joline Morrison, 2nd Edition, 2002, Thomson/Course Technology (www.course.com), ISBN:061906448X.
Other Materials: Disks/CDs as needed.
Prerequisites: MSIS 2103, 2203, 3303, and 3363.

Objectives:

Data has emerged as a strategic resource and hence, like other strategic resources (e.g. human and financial) must be managed with care and rigor. Today, business enterprises may prosper if they effectively process, analyze, and synthesize their data to produce timely and accurate information. The course will provide you (using lectures, classroom discussion, case studies, and laboratory exercises) with adequate technical knowledge of database systems while emphasizing planning, administrative and implementation issues necessary for successful management of corporate data resources.

The objective of this course is to cover the fundamentals of database modeling, design and implementation and to learn how to create integrated Web database applications. There are various approaches to designing databases. These approaches are continually evolving. You will learn Entity Relationship models and normalization as tools for designing databases. Relational databases are emphasized throughout the course. Databases are implemented on software packages with an emphasis on SQL. Current trends in database technology are also discussed.

Briefly, the following are the main objectives of the course:

1. Understand the basic concepts of database systems
2. Learn how to use the Structured Query Language (SQL)
3. Be able to design a "good" relational database
4. Foster an appreciation of databases as a useful tool in the workplace
5. Learn how to use a commercial DBMS
6. Learn how to create integrated Web database applications

The policies and schedule contained in this syllabus are subject to change at the discretion of the instructor upon notice to the class.

Grading: The percentage weights for the different components of the average grade are shown below.

Midterm 1	20	
Midterm 2	20	
Final	30	
Homework Assignments (Several homeworks will be assigned, the lowest score will be dropped)		15
Project	15	
Total	100	

Grades will be assigned according to the following average score distribution.

90-100 = A
80-89 = B
70-79 = C
60-69 = D
below 60 = F

Exams: There will be two midterms and a final exam. They will cover assigned readings from both of the required textbooks, assignments, and material and concepts presented and discussed in class. All exams can include the following types of questions: true-false, multiple-choice, matching, short-answer, problems and essays. Exams will be retained by the instructor. You are required to take the exam during the scheduled time. No make-up exams will be given except under medical conditions with proofs. If it is not possible for you to be present for an exam, please contact the instructor in advance. **Make-up exams can be different from the original exams.**

Homework assignments: There are several assignments that must be turned in throughout the semester. You are expected to read and work through the tutorials that precede the assignments in the “Database-Driven WebSites” textbook. The assignments require critical thinking to interpret a problem situation and apply the skills you have learned in the tutorials. The disks and printed output/answers should be placed in a folder with only one assignment per diskette/CD. Assignments **must** be turned in at or before the beginning of the specified class period and will not be accepted late. Lowest score will be dropped. **Details of the assignments will be presented during the course.**

Project: A hands-on group project will be required to help sharpen your skills and give you an opportunity to apply the material learned. The project will essentially require you (as a group with four members) to perform analysis of the requirements, develop an appropriate design, and implement a functional database system using a commercial DBMS. The project will apply most of the concepts and techniques covered during the term to a “real-word” database application. You should first describe the organization and provide the business rules that govern the system that you want to automate. Your report should be word-processed. The project will be presented towards the end of the term if time allows.

General policy:

Class attendance: Since each part of this course builds on previous material, it is essential that you attend every class period. Class discussions and contributions from class members add depth and interest to class sessions, and you are needed to contribute your share. Material supplemental to the text will be presented in class, and you will be held responsible for it. You are also responsible for any announcements made in class, including any alterations to the tentative schedule. If you should have to miss a class, determine what you have missed and take appropriate measures.

Special accommodations: If any student of this class feels that he/she has a disability and needs special accommodations of any nature, you should contact me or the Office of Student Disability Services (326 SU). Reasonable accommodations will be made to ensure that you have a fair opportunity to perform in this class.

Academic dishonesty/misconduct: Academic dishonesty (which includes any form of cheating) will result in a grade of “F” for the course and a recommendation that the offending student be suspended from the University.

Syllabus attachment: [OSU SYLLABUS ATTACHMENT SPRING 2008](#)

Tentative Course Outline

Date	Topic	Assigned reading/Homework
Jan 8, 10	Introduction to File Systems and Databases {H}	Hoffer {H} ch. 1, 2
Jan 15, 17	Relational Database Model {H}	{H} ch. 5
Jan 22, 24	Entity Relationship (E-R) Modeling {H}	{H} ch. 3, 4
Jan 29, 31, Feb 5,7,12,14	SQL {H}	{H} Ch. 7, 8
Feb 19	Review for Exam 1	
Feb 21	Exam #1- - Chapters 1,2,3,4,5,7,8 {H}	
Feb 26, 28	Normalization of Database Tables {H}	{H} ch. 5
Mar 4, 6	Internet Database Environment {H}	{H} Ch 10
Mar 11, 13	Distributed Database Management Systems {H}	{H} ch 13
Mar 18, 20	Spring Break	
Mar 25	Review for Exam 2	
Mar 27	Exam #2: Comprehensive	
Apr 1, 3	Object-Oriented Databases {H}	{H} ch 14, 15
Apr 8	Client/Server Systems {H}	{H} ch 9
Apr 10	The Data Warehouse {H}	{H} ch 11
Apr 15	Q&A session Final Exam Review	
Apr 17	Group project meetings	
Apr 22, 24	Oral Presentations of the Projects	Written project report (due on 4/24)
Final Exam	Final Exam (comprehensive)	Final Exam will be on Thursday May 1, 10:00-11:50.