

**MANAGEMENT INFORMATION SYSTEMS
SCHOOL OF BUSINESS ADMINISTRATION
UNIVERSITY OF MISSISSIPPI
Fall 2007**

COURSE NUMBER: MIS 408
COURSE TITLE: Advanced Management Information Systems
INSTRUCTOR: Name: Sumali Conlon
Office: Holman 247, Phone: (662) 915-5470
Office Hours: 2:00-4:00 MW and by appointment
e-mail: sconlon@bus.olemiss.edu
<http://faculty.bus.olemiss.edu/sconlon>

FILES <http://student.bus.olemiss.edu/files/Conlon/>

REQUIRED TEXTS: Ramez Elmasri, Shamkant B. Navathe, Fundamentals of Database Systems, 5/E ISBN: 0321369572; Publisher: Addison-Wesley; 2006.

DESCRIPTION OF COURSE: A study of data structures, file processing, databases and database management systems within organizations. The course covers all logical models of database, i.e., hierarchical, network, and relational models. Also covered are data analysis, design, implementation, and administration.

PREREQUISITE: MIS 280

OBJECTIVES: The major objectives of this course are:

1. Understanding Database Management Systems (DBMS)
2. Understanding various data models (hierarchical, network, relational, and Objected-Oriented)
3. Experience in database design and implementation
4. Application of DBMS techniques in various areas

CLASS MEETINGS: Wednesday at 6:00-8:30 – Conner 011 (Oxford)

TEACHING METHOD:

1. Lecture and discussion in class
2. Homework
3. Students will practice database development by using Oracle and MySQL

POLICIES:

1. GRADING SCALE:

Score includes

A	90% - 100%	2 Midterm Exams 40%
B	80% - 89%	Final Exam 30%
C	70% - 79%	Projects 15%*
D	60% - 69%	Homework & Quizzes 10%**
F	Below 60%	Class Participation 5%

*Students must turn in the **final project to earn a D** in the class.

** Students must turn in at **least 70% of homework** and **pop quizzes** to earn a **C** in the class.

2. CHEATING:

- a. Minimum penalty for cheating on out of **class assignments is zero credit** for that assignment.
- b. Minimum penalty for **cheating on exams is an F in the course.**

3. **HOMEWORK:** No late homework will be accepted

TOPICS COVERED: The following is a description of the topics to be covered and the number of hours that will be spent on each topic:

Topics	Hours
Part 1 - Introduction and Conceptual Modeling	4
Chapter 1 - Databases and Database Users	
Chapter 2 - Database System Concepts and Architecture	
Chapter 3 - Data Modeling Using the Entity-Relationship (ER) Model	
Chapter 4 - The Enhanced Entity-Relationship (EER) Model	
Part 2- Relational Model: Concepts, Constraints, Languages, Design, and Programming	8
Chapter 5 - The Relational Data Model and Relational Database Constraints	
Chapter 6 - The Relational Algebra and Relational Calculus	
Chapter 7 - Relational Database Design by ER and EER-to-Relational Mapping	
Chapter 8 - SQL-99: Schema Definition, Constraints, Queries, and Views	
Chapter 9 - Introduction to SQL Programming Techniques	
Part 3 - Database Design Theory and Methodology	8
Chapter 10 - Functional Dependencies and Normalization for Relational Databases	
Chapter 11 - Relational Database Design Algorithms and Further Dependencies	
Chapter 12 - Practical Database Design Methodology and Use of UML Diagrams	
Part 4 - Data Storage, Indexing, Query Processing, and Physical Design	8
Chapter 13 - Disk Storage, Basic File Structures, and Hashing	
Chapter 14 - Indexing Structures for Files	
Chapter 15 - Algorithms for Query Processing and Optimization	
Chapter 16 - Physical Database Design and Tuning	
MySQL and Oracle implementations	8

***School of Business Administration
Statement of Academic Integrity***

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