Database Management Systems
ACIS 4515 CRN 96280
Fall 2000

Instructor**: Dr. France Bélanger**

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Class Hours: T-TH 8:00 – 9:15 PAM 2003
Office Hours: T-TH 11:00 - 12:00; T 3:30-4:30
Also by appointment. Students are encouraged to use electronic mail.

Required:

1. McFadden, F. R.; Hoffer, J. A., ; Prescott, M. B., *Modern Database Management*, 5th Edition, Addison-Welsey: Reading, MA, 1999.

2. Morrison, J. and Morrison, M. (2000), *A Guide to Oracle8*, 1st ed., Course Technology.

3. Oracle8 software (bundled with McFadden textbook)

Optional:

You will need to find a reference book for Oracle8. There are a large number of them for sale at new and used book bookstores, as well as some available at libraries.

Prerequisite:

ACIS 3515 Information Systems Development. This prerequisite will be strictly enforced. Students without the appropriate prerequisite will not be allowed to take this course.

Course Description and Objectives:

This course presents the concepts of database administration at the undergraduate level. The principal objective of the course is to introduce the student to the wide spectrum of activities involved in database development. Emphasis is placed upon physical and logical representations, data modeling, and implementation and management of databases. Emphasis will be on relational databases in this course. Current trends in database technology will also be discussed.

The course is fast paced and requires substantial out of classroom work with homeworks, assignments, and a project. In addition, students are expected to have read the material prior to attending the lectures and participate in class discussions.

"Hands on" experience is provided through use of relational database management systems on the PC platforms called Oracle8. You will design a database and build applications to use it. Through this work, the student will become aware of some of the common problems and pitfalls that can arise during the analysis, design, and implementation of a database management system.

Honor Code:

All university policies regarding cheating, plagiarism, falsification, nonattendance, and illnesses will be strictly applied. Please read your catalog regarding these policies. The **Honor Code** will be strictly enforced in this course.

Grading:

Test 1	80 pts
Test 2 (SQL)	40 pts
Final Essays	50 pts
Final - MC	50 pts
Project	80 pts
Homework	10 pts
Assignments	40 pts
Total	**350 pts**

Grades:
Grades will be assigned as follows: >=90%: A, >= 80%: B, >=70%: C, >= 60%: D, <60%: F.
At her discretion, the instructor can assign + and - grades as well.

Tests
Test 1 and 2 will consist of multiple choice and essay questions. The questions will cover class discussions, assigned readings, and any supplemental material. You are responsible for all the material covered in class or assigned for reading, and you are expected to integrate the material.

Final:
The final examination is divided into two parts. The first part will be given in class the last full week of class and consists of three major essay questions covering the whole semester. It is an open book open notes exam. The second part of the exam consists of 50 multiple-choice questions, and will be given during the exam period.

Makeup Exams:
Makeup exams will not be given, unless a documented physician approved medical condition occurs (not a visit to the Health Center!). **Job interviews are not considered acceptable reasons for not attending the exam the day it is scheduled**. Make arrangements with companies you are interviewing with.

Project:
A hands-on group project will help sharpen your skills and give you an opportunity to apply the material learned. The project will consist of designing and implementing a complete database using Oracle8. A project report consisting of a user manual and a developer manual, and a disk containing the prototype system must be submitted by the due date. Grading will be based on the quality of the analysis and design as presented in the documentation package, and on the actual implementation of the database model in the prototype. More details will be provided later.

Homework:
The instructor will collect sporadically homework problems as listed in the syllabus. The homework will receive a grade of 2 (satisfactory) 1 (turned in but minimal effort) or 0 (not turned in). No late homework can be accepted for any reasons (including absence).

Assignments:
There will be a number of assignments during the semester. The assignments will be done in teams of two students. Students must decide before the end of the second week of class who they will work with. The instructor will advise you of the due dates of assignments at least two weeks in advance.

Re-grade Policy: Work can be submitted for grade re-evaluation. To request a re-grade, you must submit a written request **within one week** of the date the work was returned. The written request must include a cover sheet that explains (1) the specific test questions or aspects of the project that you want re-evaluated, and (2) why the original grade should be reconsidered. Re-grade requested more than one week after the day grades are returned to the class will not be processed, even if individuals where absent the day the grades were returned.

Instructor Policies:

1. I will not accept any late homework or assignments.
2. I will not extend the deadline on the project due date.
3. I will not change an exam date for a student's convenience. Only physician approved medical conditions are considered.
4. I will not go over material that was covered in class with students who did not attend the class for unjustified reasons. Find colleagues who will lend you their notes.
5. I will take 5 % of points off on an assignment, homework or project if you send me an infected file. Make sure you scan your files for viruses before sending them to me.
6. I will spend the time needed with you to understand the material one-on-one during office hours.
7. I will reply to your emails in a reasonable time.
8. I will schedule a meeting at a convenient time if you cannot attend my office hours.

ACIS 4515
Tentative Outline

Week		**CHAPTER**	**TOPIC**	**HOMEWORK/ DUE DATES**
Week 1	8/22-24	1	Introduction and Course Overview	Problem 2 & 8 Case Q 1 and 4
Week 2	8/29-31	2	Database Development process	Problems 11 and 12 Case Q 5, 6, 7, 8
Week 3	9/5-7	3 & 4	Entity Relationship Diagrams	Problems 4, 5, 8 Case Q 1 and 3
Week 4	9/12-14	6 & App. B	Database Design (Logical)	Problems 4, 6, 8 **Assignment 1 (erd) due**
Week 5	9/19-21	7	Database Design (Physical)	Problems 5, 6, 7
Week 6	9/26-28	Notes	**Test 1 (1-4, 6-7, App B)** Matrix Algebra	
Week 7	10/3-5	9	SQL	**Assignment 2 (Normalization) due**
Week 8	10/10-12	Oracle 2 & 3	Creating/ Viewing/ Modifying database	Read case p. 12-17 Problems 2.4, 2.5, 3.B.11 **Phase 1 Project due**
Week 9	10/17-19	Oracle 4	PL/SQL	A.3, A.4, B.5, C.3
Week 10	10/24-26	Oracle 5	Forms	A2, B1, C2, C3
Week 11	1-/31-11/2	Oracle 6 & 7	Reports	TBA
Week 12	11/7-9	Oracle 10	Web DB applications **Test 2 (Oracle 2-7)**	
Week 13	11/14-16	8 11	Middleware Distributed Databases	**Final Project due**
Week 14	11/21-23		**Thanksgiving**	
Week 15	11/28-30	13	Data and Database Administration **Essays (Final - Part 1)**	
Week 16	12/5	14	Data Warehousing Review for **Final (8-9, 11, 13-14)**	

- Any changes to this schedule will be announced in class.
- **The Final Exam –Multiple Choice is scheduled for Wednesday Dec. 13, 3:25-5:25.**