Database Management Systems
ISM 4212 (3 Credit Hours)
Fall 2011

Professor Ms. Sue Carter
Office Location Course Day
Office Phone Course Time
E-Mail carter@fau.edu
Blackboard http://blackboard.fau.edu
Office Hours

Course Description
Course focuses on the development of well-formed databases for the purpose of data management from the initial design of the database to the implementation and query, the application of database management tools and techniques, such as data security, for use in business and government organizations.

Objectives & Learning Goals
- Students will reinforce learning of basic database concepts such as tables, relationships and queries. They will be introduced to advanced concepts such as normalization, instance charts, SQL Code. The emphasis will be on database design.
- Students will demonstrate the ability to use software to create ERDs. Students will demonstrate proficiency in use of SQL to create, populate and query a database.
- Students will reinforce their team communication skills by working on a team semester long project with the objective to design and create a database based on a limited real world business problem.
- Students will be able to demonstrate the ability to analyze data and available documents in order to demonstrate proficiency in applying database design techniques.
- Students will be able to demonstrate the ability to use a well-formed design to create a database. Students will use queries to answer business questions relevant to their project by choosing the appropriate data and most appropriate query type.

Blackboard:
This course is Blackboard-assisted, and much course business, such as file distribution, emails, project instructions, and announcements, take place exclusively through Blackboard.

Prerequisite: ISM 3230

Required Textbooks

Other
- Bring your USB drive to class every class.

Attendance
During the lectures, frequent discussions of concepts and implications can be expected in class. Regular attendance and active participation are an essential part of learning in this course, and you may be called upon to share your ideas, experience, or educated opinions. Therefore, it is advised that you come to each class having read (or at least scanned) the assigned materials. If you do not attend and participate you should not expect to do well in the course.

Grading
Exam 1 – 25 pts for in class exam and 10 pts for the take home project
Exam 2 – 25 pts for in class exam and 10 pts for the take home project
Exam 3 – 25 pts for in class exam and 5 pts for the take home project

THE LOWEST IN CLASS EXAMINATION SCORE WILL BE REPLACED WITH THE AVERAGE OF THE THREE EXAMS. (For example: Exam 1 Score = 25, Exam 2 Score = 14, Exam 3 Score = 24; The lowest score (Exam 2 = 14) would be replaced with the average score of the three examinations. Exam 2 score would be replaced with a score of 21.)

Grading Scale
Grade | F | D- | D | D+ | C- | C | C+ | B- | B | B+ | A- | A
Cutoff | 0 | 60 | 63 | 67 | 70 | 73 | 77 | 80 | 83 | 87 | 90 | 93

Examinations
- Students may bring two 8 ½ X 11 pages (both sides) full of helpful hints. Your help sheets must be handwritten by you. The act of preparing the sheets will help you study for the test. You MUST bring a green Scantron and a number two pencil.
- None of the exams are collaborative! Cheating will be dealt with harshly.
- There will be a review session prior to the examination. The review will focus on student questions related to the topics in the module.

Examination Make-ups
- If you are late to an exam, you will only be able to begin the exam if no students have yet submitted their exam and left the classroom. In addition, if you are late, you will not get extra time to finish the exam. I will NOT administer a make-up exam for students who are late and arrive after the first student has submitted the exam and left the classroom.
- If you are unable to take a lab exam due to a medical or family emergency you must inform me of that fact on or earlier than the day of the exam, but no later than one week after the exam. To make up any missed exam you must provide a valid reason: documented emergency, illness or standard FAU exception (military service, student athletes, etc). A note from your parent will not be acceptable. You will need to present official documentation as proof (doctor’s note, obituary listing you as survivor, etc.) by the date listed in the course schedule. If in the beginning of the semester you provide your instructor with a list of dates you will be absent, it will still be necessary for you to provide written documentation at the time of the absence. If a make-up is given after the graded exam is returned to the class then the instructor may create a new exam for the student.

Project
The project is due at the beginning of class on the day of the exam except for Mod 3. See schedule for dates. The team evaluations are due by 11:59 PM on the day of the exam. ½ point will be taken off the
module score for each team evaluation not turned in correctly. Instructions for the project and evaluations are on Blackboard. Two (2) points will be deducted per day for late submission of project. Two people will work on a project. Each student will complete an evaluation form for each part of the project. See Blackboard for complete instructions.

Note: The final project submission is retained at the end of the semester, so please keep a copy for your records.

**Practice Exercises**

We will work on Practice Exercises during class. Therefore, bring your books to class. It is possible that, on occasion, the instructor will assign exercises to complete for the next class. These are to be the individual’s work unless stated otherwise. She may randomly collect these and count them as a bonus toward your final grade. They can NOT be turned in at a later time. If you know you are going to miss class email the assignment to the instructor before the class starts.

**Class Policies**

- You should use E-MAIL to communicate with me instead of leaving messages on my door or in my mailbox in the ITOM office (FH 219). Put the course id – ISM 4212 – in the subject of all messages. In the body of all email messages you should give me your name, the course name and time and day of the section (i.e., 11AM M/W) you're in so that I can identify who you are. All messages should be written with the same type of language and manners that you would use in a formal, business setting.
- Students are responsible for retaining copies of all material (hard-copy, grade sheets and disk copies) until the final grade is received.
- Grades will not be given out over the phone or by e-mail.
- Do not ask if it is acceptable to miss a class. It is your decision how you should spend your time.
- Exams, quizzes and homework will be returned at the next class period. If you are absent when these items are returned, you may come by my office to see/collection them. You have one week after I return any project, test, etc to dispute the grade. After that point the grade will stand as given.
- Priority will be given to students who are in the office. Phone calls will be asked to wait or call back at a later time if there is a student present.
- Class will begin on time. If you are late, make every effort to minimize disruption to other students. You are responsible for all material presented in class. If you miss any material because of absence or tardiness, you should ask another student for notes. The instructor's notes will not be available.
- Office hours are specifically for the purpose of addressing class-related questions and problems. Times other than posted office hours are by appointment, but are available. If you do not have an appointment for hours outside of posted office hours, you may be asked to wait or come back at a later time.
- Please realize that you earn your grades. I cannot arbitrarily move the grading scale to accommodate your specific needs or desires nor give you extra credit or special consideration. It would be not only unfair to those who worked hard all semester to achieve their grades, but also unfair to you since, in life, you reap the consequences of your actions, both positive and negative. The best way to end the semester well is to begin the semester well and follow through consistently. I will be happy to assist you in acquiring the knowledge and skills.
required to meet your goals, both within and outside of class. However, your grade itself is determined by you, and not by me.

**Cheating/Academic Irregularities**
Cheating, plagiarism, copying, and unauthorized collaboration are unacceptable, and are subject to disciplinary action. All College of Business policies are in effect with regard to cheating. Penalties for cheating, at a minimum, include receiving a zero on the examination.

“Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty, including cheating and plagiarism, is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see http://www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf

**Incomplete Work Policy**
University policy states that a grade of “I” may be given only when a student is currently receiving a passing grade in the course. An incomplete is meant for hardship cases where you are unable to complete the course requirements due to circumstances beyond your control. Pay attention to drop dates. If the course is too much for you, drop it.

**ADA Accommodations**
“In compliance with the Americans with Disabilities Act (ADA), students who require special accommodations due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) located in Boca Raton -SU 133 (561-297-3880), in Davie -MOD I (954-236-1222), in Jupiter -SR 117 (561-799-8585), or at the Treasure Coast -CO 128 (772-873-3305), and follow all OSD procedures. “
http://www.fau.edu/eop/ada/ada_policy.php

**Religious Accommodations**
“In accordance with rules of the Florida Board of Education and Florida law, students have the right to reasonable accommodations from the University in order to observe religious practices and beliefs with regard to admissions, registration, class attendance, and the scheduling of examinations and work assignments. Students who wish to be excused from course work, class activities, or examinations must notify the instructor in advance of their intention to participate in religious observation and request an excused absence. The instructor will provide a reasonable opportunity to make up such excused absences. Any student who feels aggrieved regarding religious accommodations may present a grievance to the director of Equal Opportunity Programs. Any such grievances will follow Florida Atlantic University’s established grievance procedure regarding alleged discrimination.”
http://www.fau.edu/academic/registrar/catalog/academics.php. (Listed under the “Policies for all students” section)
<table>
<thead>
<tr>
<th>Week</th>
<th>Anticipated Schedule</th>
<th>Rob &amp; Coronel 9th Ed Chapter</th>
<th>Casteel Oracle 11G</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
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<td>Database Design: SDLC, DBLC, top-down, bottom-up, integration</td>
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<td>File Systems and Databases: Data, Information, Database, DBMS, DBMS Types, Data Redundancy, DB Systems, DBMS Functions.</td>
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<td>2</td>
<td>Data Models: Entities, Attributes, Relationships, Business Rules. Overview of data models. Data abstraction: conceptual, internal, external models. The Relational Database Model: Tables, keys, integrity, operators, linking tables, data redundancy</td>
<td>Info Sheet Due</td>
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<td>Normalization: 1NF, 2NF, 3NF, Refinement, BCNF, 4NF</td>
<td>Inv Approval</td>
<td>2, 3, 4, 6</td>
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<td>3</td>
<td>Normalization: continued</td>
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<td>4</td>
<td>ER Modeling: Entities, Relationships Weak, Recursive, Composite, Super/Subtypes, Developing an E-R Diagram.</td>
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<td>4, 5, 6, 7, 8, App A</td>
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<td>5</td>
<td>ER Modeling Cont.</td>
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<td>6</td>
<td>EXAMINATION # 1 &amp; Module1 due</td>
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<td>1, 2, App B 519-522</td>
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<td>7</td>
<td>Instance Charts SQL: BasicSelect</td>
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<td>Lab: Projects/Exercises</td>
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<td>8</td>
<td>SQL: DDL</td>
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<td>9</td>
<td>SQL: DDL</td>
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<td>Lab: Projects/Exercises</td>
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<td>10</td>
<td>Module continued /Open Lab for Project</td>
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<td>11</td>
<td>EXAMINATION # 2 &amp; Module2 due</td>
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<td>12</td>
<td>SQL: DML, transaction mgmt, concurrency control</td>
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<td>Lab: Projects/Exercises</td>
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<td>13</td>
<td>SQL: Select, restrictions, logical &amp; special operators, order by. Projects/Exercises</td>
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<td>14</td>
<td>SQL: joins, group functions &amp; subqueries. Lab: Projects/Exercises</td>
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<td>15</td>
<td>Lab: Open</td>
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<td>16</td>
<td>Module 3 submission - Due by 5 PM Friday</td>
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<td>FINAL EXAMINATION</td>
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**Note:** course requirements and schedule may vary based on class discussions and course progress. Check blackboard for updates.