DATABASE MANAGEMENT

COURSE DESCRIPTION:
Concepts and methodology of data base planning, design, development, and management of the computerized database of a management information system. The emphasis is on logical data base design and a study of hierarchical, network, and relational implementations. Normalization exercises are completed relative to the logical design of relational databases. Exercises and assignments use a relational DBMS package.

COURSE PREREQUISITES:
Prerequisite: Junior standing or above

LEARNING OBJECTIVES:
By the end of this course, the students will be able to:
1. know the concepts of Entity-Relationship (ER) model and Unified Modeling Languages (UML) (BBA Goal 1, Objectives 1 and 2)
2. be able to design and draw a model for a database application (BBA Goal 1, Objectives 1 and 2)
3. know the concepts of Normalization and appreciate why it is important to the database design (BBA Goal 2, Objectives 1, 2 and 3)
4. appreciate the benefits and realize the constraints and limitations of database management systems (BBA Goal 2, Objectives 1, 2 and 3)
5. gain an experience on how database systems can be constructed using commercial DBMS products (BBA Goal 3, Objectives 1, 2 and 3)
6. develop technical writing, teamwork, and presentation skills (BBA Goal 1, Objectives 1, 2 and 3)
7. know the concepts of data warehouses and data mining (BBA Goal 3, Objectives 1, 2 and 3)
8. know the concepts of database administration (BBA Goal 4, Objectives 1 and 2)

MAJOR COURSE REQUIREMENTS:
In this course, you are required to complete two (2) regular exams, ten (10) chapter assignments, ten (10) chapter quizzes, group database project and presentation.

REQUIRED TEXT:

DATA RECOVERY:
You are strongly urged to use additional storage media (USB flash drives, or a cloud server) to back-up your digital work. The question is never if you will lose data. The question is WHEN will you lose data. There are many events that can lead to the loss of data so always have a back-up copy stored in a safe place. Loss of data is NOT an acceptable excuse for not turning-in an assignment.

EXPECTATIONS OF STUDENTS:
1. You are EXPECTED to have read the material BEFORE it is covered in class.
2. You are responsible for all material presented in lecture and assigned readings.
3. You are responsible for turning in all assignments on time.
4. You are responsible for staying informed of assignments, meeting locations, and any changes to the syllabus announced during class time.
5. You are responsible for doing everything necessary to learn the material.
You are responsible for knowing and abiding by the rules and policies outlined in this syllabus.

COURSE POLICIES:

ATTENDANCE/TARDINESS - Regular and punctual attendance for the full period of each class is expected. Unexcused absences WILL adversely affect your grade. Attendance of all classes is expected, and attendance will be checked from time to time. Should you miss a class, you are responsible for all material covered, including announcements and handouts. Any suggestions you have on how to provide the class a better learning experience are always welcome.

EXAMS - Your performance will be evaluated, in part, on two (2) examinations. The exam formats will generally be multiple choice, and/or short answer essay. Scantron forms may be needed for all examinations. Lectures, readings, class activities, and case problems will be the basis of these exams. All course material is fair game for exam question – all assigned readings whether discussed in class or not and all material presented in lectures whether covered in assigned readings or not. You should KEEP all of your graded exam forms until the final grades have been posted.

MAKEUP EXAMS - Exams are not to be missed for the convenience of the student. You are expected to schedule other activities around the class exam dates. If a major exam is missed due to an excused absence, a make-up exam will be administered at a time and place agreed upon by the student and instructor. In general, make-up exams will be administered within one week of the date of the original exam. Any exam or class activity missed without a preapproved excuse will be assigned a grade of ZERO.

ELECTRONIC DEVICE USAGE - Computers or tablets are required to complete this course.

EXTRA CREDIT (if any) - Extra credit may become available from time to time. It can take several forms, including opportunities to participate in research projects and/or campus activities, and then writing brief reports about them. Extra credit opportunities are each worth 5 points.

GRADING - Your grade in this course will be based on your performance on two (2) exams, ten (10) chapter assignments, ten (10) chapter quizzes, and one (1) group database project and presentation. PERCENTAGES ARE NOT USED IN GRADING IN THIS COURSE. IF YOU WANT A PARTICULAR LETTER GRADE YOU MUST EARN THE MINIMUM NUMBER OF POINTS FOR THAT LETTER GRADE.

For example, for a letter grade of “A” you must earn at least 1800 points (in other words 1799.9 points IS NOT an “A”, 1799.9 points IS a letter grade of “B”). The distribution of points per assignment and the tentative grading scale are as follows: (subject to change before the beginning of the semester)

- Exams (2 at 200 points each) 400 points
- Chapter Assignments
  - (10 graded at 50 points each) 500
- Chapter Quizzes
  - (10 graded at 70 points each) 700
- Group Database Project/Presentation
  - (1 graded at 400 points each) 400
- Total points 2000 points

The tentative grading scale is as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1800-2000</td>
</tr>
<tr>
<td>B</td>
<td>1600-1799.9</td>
</tr>
<tr>
<td>C</td>
<td>1400-1599.9</td>
</tr>
<tr>
<td>D</td>
<td>1200-1399.9</td>
</tr>
<tr>
<td>F</td>
<td>below 1200</td>
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</tbody>
</table>

ACADEMIC INTEGRITY/PLAGIARISM - University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a zero the first time and failing the course for any additional offense. NO EXCEPTIONS!
DROPPING A CLASS - I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with me before you decide to drop to be sure it is the best thing to do. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. November 08, 2019 is the last day to drop a class with an automatic grade of “W” this term.

PREFERRED METHODS OF SCHOLARLY CITATIONS – APA style is the only accepted method used for citations and referencing during this class. All work should be paraphrased rather than copied directly. Material used from sources other than the text should use APA style citations and references.

CLASSROOM/PROFESSIONAL BEHAVIOR - Texas A&M University-Corpus Christi, as an academic community requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

STATEMENT OF CIVILITY – Texas A&M University – Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high-quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the right of another individual will not be tolerated.

GRADE APPEALS - As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://www.tamucc.edu/provost/university_rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Dean’s office in the college in which the course is taught or the Office of the Provost.

DISABILITIES ACCOMMODATIONS - The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Corpus Christi Hall 116.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

STATEMENT OF ACADEMIC CONTINUITY - In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

RELATIONSHIP TO OTHER COURSE WORK: Where MISY 2305 (Computer Applications in Business) provides for the development of hands-on computer package skills and MISY 3310 (Management Information Systems Concepts) provides the overview of all types of information systems, this course provides a comprehensive understanding of database and database design. Knowledge about building systems in general acquired in MISY 3340 (Systems Analysis & Design) are directly related to this course. The computer skills learned in MISY 2305 or equivalent are required to complete the assignments in this course.
INSTRUCTIONAL METHODOLOGY:
Scheduled class time will be used for group collaboration, lectures, student presentations, discussions and student activities. You are encouraged to ask questions and to participate in class discussions. In addition, you are encouraged to pay attention to local, national, and international media coverage (printed as well as audio-visual media) on information system topics.

DATABASE GROUP PROJECT:
Your database project for this course will be completed in groups of three (3). You will be responsible for selecting a business (real or imaginary) and developing a relational database using Microsoft Access. If your group will be using a real business, then you should try to interview a manager or an executive from that business to determine what their data needs are. If your group chooses to create your own imaginary business, then your group will need to decide what the data needs are for your business. Your database should contain at a minimum six (6) tables, three (3) forms, five (5) queries, and five (5) reports. Completing only the aforementioned minimums will NOT earn your group full credit for this project. Your group is expected to create a database project that has been well thought out and that could be used in the ‘Real World’. In addition to creating the database, you should test the database to verify that it functions correctly. It is your responsibility to determine that your database works without error. It is also your responsibility to make sure that your disk/program/database is virus free. Any disk/program/database received that has a virus on/in it will be returned to you with a grade of zero (0). You will be turning in your completed database project via the COB network Dropbox. All of the files associated with the project you are turning in should be stored in an identifying folder that you create and use before you start work on the project.

The project folders that you turn-in via the dropbox should be in the following format:

BUSINESS-NAME-GROUP MEMBER 1 INITIALS-GROUP MEMBER 2

INITIALS-GROUP MEMBER 3 INITIALS

For Example:

Databases-r-Us-RC-AP-KW

Only the files associated with the assignment should be on the disk that you turn-in for grading purposes. There are several files that may be part of your project, so you should be aware of the files that you use and make sure that they are all included on your assignment disk.

If you plan not to attend class on the date an assignment is due, it is your responsibility to turn in all parts of the assignment before the due date. LATE WORK WILL NOT BE ACCEPTED! NO EXCEPTIONS!

The project will consist of three (3) parts: 1.) A proposal; 2.) the actual database; and 3.) a presentation. The group database project will be turned in via the COB Dropbox no later than Tuesday, November 19, 2019.

INSTRUCTOR STATEMENT:
It is my intention to devote the time, effort, and resources to properly instruct each student, and the class as a whole, in the course subject matter and industrial applications in general. I encourage you to devote the time and effort necessary to succeed in this course. The material in this course IS cumulative. Hence, you should strive to keep up with the material and not fall behind.

I encourage you to attend class and participate in all aspects of the learning process.

Best wishes for your success in the class.

CLASS SCHEDULE:
The following class schedule has been prepared to serve as a guide for the semester. Adjustments may be made to this schedule as necessary. Examinations will cover all material indicated on the assignments below (regardless of whether or not is was discussed in class) in addition to any material covered in class lectures.

TENTATIVE CLASS SCHEDULE*
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>In-Class</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Aug 27, T)</td>
<td>Course Introduction</td>
<td>Lecture</td>
<td>Read: CH. 1 Database Systems</td>
</tr>
<tr>
<td></td>
<td>Database Systems (CH 1)</td>
<td></td>
<td>Read: CH. 2 Data Models</td>
</tr>
<tr>
<td>2 (Sept 03, T)</td>
<td>Data Models (CH 2)</td>
<td>Lecture</td>
<td>Read: CH. 3 The Relational Database Model</td>
</tr>
<tr>
<td>3 (Sept 10, T)</td>
<td>The Relational Database Model (CH 3)</td>
<td>Lecture</td>
<td>Read: CH. 4 Entity Relationship (ER) Modeling</td>
</tr>
<tr>
<td>4 (Sept 17, T)</td>
<td>Entity Relationship (ER) Modeling (CH 4)</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>5 (Sept 24, T)</td>
<td>Entity Relationship (ER) Modeling (CH 4)</td>
<td>Lecture</td>
<td>Read: CH. 6 Normalization of Database Tables</td>
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<td>(Continued)</td>
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<tr>
<td>6 (Oct 01, T)</td>
<td>Normalization of Database Tables (CH 6)</td>
<td>Lecture</td>
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<tr>
<td>7 (Oct 08, T)</td>
<td>Normalization of Database Tables (CH 6)</td>
<td>Lecture</td>
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<td>(Continued)</td>
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<tr>
<td>8 (Oct 15, T)</td>
<td>***** EXAM 1 *****</td>
<td></td>
<td>Chapters 1, 2, 3, 4 and 6</td>
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<tr>
<td></td>
<td>Read: CH. 7 Intro to SQL</td>
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<tr>
<td>9 (Oct 22, T)</td>
<td>Introduction to SQL (CH 7)</td>
<td>Lecture</td>
<td>Read: CH. 9 Database Design</td>
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<tr>
<td>10 (Oct 29, T)</td>
<td>Database Design (CH 9)</td>
<td>Lecture</td>
<td>Read: CH. 13 Business Intelligence and Data Warehouses</td>
</tr>
<tr>
<td>11 (Nov 05, T)</td>
<td>Business Intelligence and Data Warehouses (CH 13)</td>
<td>Lecture</td>
<td>Read: CH. 14 Big Data and NoSQL</td>
</tr>
<tr>
<td>12 (Nov 12, T)</td>
<td>Big Data and NoSQL (CH 14)</td>
<td>Lecture</td>
<td>Read: CH. 16 Database Administration and Security</td>
</tr>
<tr>
<td>13 (Nov 19, T)</td>
<td>Database Administration and Security (CH 16)</td>
<td>Lecture</td>
<td>DUE: GROUP PROJECT</td>
</tr>
<tr>
<td></td>
<td>Group Project Presentations</td>
<td></td>
<td></td>
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<tr>
<td>14 (Nov 26, T)</td>
<td>Group Project Presentations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 (Dec 03, T)</td>
<td>***** EXAM 2 *****</td>
<td></td>
<td>Chapters 7, 9, 13, 14 and 16</td>
</tr>
</tbody>
</table>

*This is our plan and is subject to change.*