La Salle University
MS Computer Information Science/MS Information Technology Leadership
CIS 523 Data Processing and Database Management

INSTRUCTOR

CONTACT INFORMATION

Instructor: Margaret McCoey
Location: mccoey@lasalle.edu

Office Hours: MWF 11-12 via phone. I am very accessible via email.

Email: mccoey@lasalle.edu
Phone: 215.951.1136

INSTRUCTOR BIO

I completed my studies locally (La Salle and Villanova). Currently, I am the director of the graduate programs in Computer Information Science and Information Technology Leadership. I have worked professionally for a software developing company, a defense contractor, and a private consulting firm. My background includes development in operating systems, data management, human resources, finance, procurement and sales. I have also developed very specialized systems for navigation, communication and ordnance. I also have worked in quality assurance and testing groups. My technology career includes 30 years of real system development. I have been an adjunct teacher at La Salle since 1980 and I joined in a full-time position in 1999. I served as the director of the Digital Arts and Multimedia Design program before becoming the graduate program director. I teach courses for the computer science graduate and undergraduate programs here at La Salle.

COURSE OVERVIEW

Students will study database system and data structures including architecture and data languages. They will investigate logical and physical database design. The course will focus on database models using entity-relationship diagrams and normalization for relational databases. Students will study issues involving data integrity. Students will use query languages including SQL and relational algebra. Students will perform analysis and evaluation of database designs, in relation to the strategic mission of a project. Specific consideration of social, ethical issues and privacy of data in database development. The course will use case studies and a relational database project implementation.
COURSE DATES

The course runs from 8/31/2009 to 12/13/2009

PREREQUISITES

There are no prerequisites for this course. You will need to install the MS Access Software, Visio and MS SQL Server. You are expected to have completed the online training module prior to starting this course. We will not be reviewing course tools except those specific to this material. You should be comfortable with the features of the learning management system, the set up for the synchronous system and the use of the email system.

COURSE OUTCOMES

Goals

- Analyze a business problem to determine if a database would help with solution of the problem
- Develop a database design based on the results of the business analysis
- Develop a model for the database design
- Implement the database design using a relational database tool
- Prepare questions about the database using the structured query language
- Explain database transaction processes associated with data changes.
- Describe difference between a database and a data warehouse

REQUIRED TEXTBOOKS AND MATERIALS

TEXTBOOKS

Database Systems: A Practical Approach to Design, Implementation and Management Fifth Edition
by Thomas Connolly and Carolyn Begg

You may also use the online version of this book. The ISBN for the online version is 0136076459.

SOFTWARE/HARDWARE REQUIREMENTS

- Software Applications
  MS Access 2007, Visio, MS SQL Server 2008
- Additional hardware, for example
  o Microphone, ear phones and Place to save class and home work (USB Drive is suggested)
RECOMMENDED READING/WEBSITES

Web sites will be added to the course weblinks.

TECHNICAL SUPPORT

Technical support information will be provided by academic computing. They may be reached by contacting 215.951.1788. You may also submit a help request by visiting http://helpdesk.lasalle.edu

COURSE STRUCTURE

This course will be set up by giving a learning module for each week of class. You will be asked to read the directions and complete the components of the learning module. For most weeks, the typical learning module format will be

- Directions for the module
- Slide presentation with audio explanation
- Reading work and study guide
- Series of “class problems”
- Self-Assessment
- Review of the solutions
- Weekly assignment (this may be a “group” or individual project)
- Homework assignment

All course work will be done online. When working online, all discussions, assignments, conversations, and postings that are scheduled and due in a week’s time are expected to be competed in that week. The online week runs from midnight on Monday to 11:59 PM on Sunday evening the following week. Learning modules will be available for your use by midnight on Monday. If you have a schedule issue, during the course, you need to contact me.

<table>
<thead>
<tr>
<th>Learning Module/Week</th>
<th>Topic</th>
<th>Reading</th>
<th>Assignment</th>
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</thead>
<tbody>
<tr>
<td>LM 1 — 8/31</td>
<td>Review of Syllabus Database Overview</td>
<td>Chapter 1</td>
<td>Sample Discussions, Assignments 1—due 9/14</td>
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<tr>
<td>LM 2 — 9/7</td>
<td>Database Overview Using DATABASE Tool</td>
<td>Chapter 2</td>
<td>WIMBA Session—Using MS ACCESS</td>
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<tr>
<td>LM 3 — 9/14</td>
<td>Database Architectures and the Web</td>
<td>Chapter 4</td>
<td>Assignment 2 – due 9/27</td>
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<tr>
<td>LM 4 — 9/21</td>
<td>ER Modeling</td>
<td>Chapter 12</td>
<td>ER Lab Examples WIMBA Session</td>
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<td>LM 5 — 9/28</td>
<td>Advanced ER Modeling</td>
<td>Chapter 13</td>
<td>Assignment 3 ER Example Due 10/12</td>
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<tr>
<td>LM 6 — 10/5</td>
<td>Normalization</td>
<td>Chapter 14-15</td>
<td>WIMBA Session Lab on Normalization</td>
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<tr>
<td>LM 7 — 10/12</td>
<td>Relational Algebra</td>
<td>Chapter 5</td>
<td>Assignment 4</td>
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<tr>
<td>Course/Topic</td>
<td>Dates</td>
<td>Notes</td>
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<tr>
<td>LM 8—10/19</td>
<td>Midterm EXAM</td>
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<td>LM 9—10/26</td>
<td>SQL—Data Manipulation and Data Definition</td>
<td>Chapter 6-7 WIMBA session for SQL Assignment 5 SQL due 11/9</td>
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<tr>
<td>LM 10—11/2</td>
<td>Query by Example Forms and Reports</td>
<td>Chapter 9 WIMBA Session for QBE SQL Lab</td>
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<td>LM 11—11/9</td>
<td>Transaction Management</td>
<td>Chapter 22 Assignment 6 Forms and Reports due 11/23</td>
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<td>LM 12—11/16</td>
<td>Security and Administration</td>
<td>Chapter 20 Research Project</td>
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<tr>
<td>LM 13—11/23</td>
<td>Work on Projects and Examples (Thanksgiving)</td>
<td>WIMBA Session</td>
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<tr>
<td>LM 14—11/30</td>
<td>Project Presentation</td>
<td>Final Project Due</td>
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<td>LM 15—12/7</td>
<td>Final Test</td>
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**COURSE REQUIREMENTS**

**PARTICIPATION**

Active and informed participation is required in all in-class and online discussions and exercises, including group lab projects.

**PROJECT/ASSIGNMENT DUE DATES**

6 Individual Projects—see syllabus for expected due dates.

1 Group project—due week of 11/30

**LEARNER EXPECTATIONS**

Students are expected to:

- Complete all readings and assignments by the due date
- Check the online course material and discussion forum at least 3 times a week (each week runs from Monday – Sunday; new material will be available each Monday)
- Participate actively in both online and in-class discussions
- Take initiative to review suggested reading sources and contribute items of interest to course discussions
- Engage the instructor immediately if any problems arise that may prevent the student from completing the above requirements

The instructor is expected to:

- Post all course materials and assignments in a timely manner
- Make him/herself available by email and/or online chat for student questions or concerns
- Check the course regularly and contribute to the online discussion areas
• Provide each student with timely feedback on their progress in the course
• Grade and return all assignments in a timely manner

EVALUATION AND ASSESSMENT OF LEARNER PERFORMANCE

In-class & Online Participation including weekly assignments  20%

Individual Projects  20%

Midterm and Final Exam  40%

Semester Group Project  20%

When an assignment is presented, a rubric will be included with the assignment. Students will be able to read the assignment guidelines and the grading expectation form.

RUBRIC FOR DISCUSSION SCORING

Your initial posting to discussion topics and your responses to others will be evaluated by the following criteria:

<table>
<thead>
<tr>
<th>Initial Posting</th>
<th>Application: examples of personal and professional experience in initial response</th>
<th>Appropriate citations in the initial response</th>
<th>Writing standards and clarity of the initial response</th>
<th>Timeliness of the initial response</th>
</tr>
</thead>
<tbody>
<tr>
<td>The response refers to course materials and reflects an understanding of the assignments and readings for that unit. Irrelevant comments are not part of the response and concepts are synthesized and ideas addressed. Excellent ____. Satisfactory ____. Unsatisfactory _____.</td>
<td>The response addresses authentic and professional examples. This integrates the course materials with personal relevant experience. Application of course materials, concepts and ideas correctly and insightfully. Excellent ____. Satisfactory ____. Unsatisfactory _____.</td>
<td>The response refers to course resources of resources gathered by the learner to support theoretical insights. Opinions are welcomed but are labeled opinions and held to z minimum unless the questions requests the learner discuss personal feelings. Excellent ____. Satisfactory ____. Unsatisfactory _____.</td>
<td>The writing is clear, concise and easy to understand. The terminology used is appropriate and used correctly. The response is coherent and meaningful. Excellent ____. Satisfactory ____. Unsatisfactory _____.</td>
<td>The response is submitted on or before the due dates. Excellent ____. Satisfactory ____. Unsatisfactory _____.</td>
</tr>
</tbody>
</table>
RESPONSES TO OTHER LEARNERS

<table>
<thead>
<tr>
<th>Integration and synthesis of concepts and principles in response to other learners</th>
<th>Writing standards and clarity of the response to other learners</th>
<th>Timeliness of the initial response</th>
</tr>
</thead>
<tbody>
<tr>
<td>The other learner’s concerns and ideas are address with respect and the response refers to the course materials where appropriate. Irrelevant comments area excluded and the response reflects an understanding of the content. Excellent ___.</td>
<td>The terminology is clear and concise and the writing is easy to understand and coherent. Excellent ___. Satisfactory ___. Unsatisfactory ___.</td>
<td>The response is submitted on or before the due dates. Excellent ___. Satisfactory ___. Unsatisfactory ___.</td>
</tr>
</tbody>
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ACADEMIC HONESTY

A high level of responsibility and academic honesty is expected from our students and it is imperative that a student demonstrates high ethical standards in his/her academic work. Academic dishonesty includes, but is not limited to, submission as one’s own work or material that is not one’s own. Plagiarism from the web or from any other source is unacceptable and will be dealt with under the university’s policy on plagiarism. Students suspected of academic dishonesty are subject to disciplinary actions. Please refer to the LaSalle Student handbook.

If you have a question about the authenticity of your work, LaSalle makes available to you a data base service called “Turn It In”. You instructor will give you all the information to use it. The purpose of this service is to help you identify areas where you might improve our writing and source referencing.

COURSE POLICIES

LATE WORK POLICY

It is important to be familiar with this instructor’s late work policy. Lesson assignments are due on Sundays by 11:59 PM EST. Late assignments will be penalized 10% for the first week late. Assignments will not be accepted after the first late week.
An assignment is considered late even if it is turned in a day or two after the due Sunday, 11:59 PM Eastern Standard Time. Therefore, turn in your work on time to avoid late penalties, to avoid stress, and to get the most from the learning resources.

No credit will be given for any late threaded discussion posts or late final assignments. The rationale underlying this policy is that since the threaded discussions are a central part of the class, student participation is necessary (and required) during the current week of each lesson. Consequently, students must post their reply to the threaded discussion question(s) and reply to at least two classmates’ posts during the week of the relevant unit in order to be eligible for credit. Concerning any final assignments, external deadlines prevail so flexibility is not an option.

In the event that an assignment is turned in late, you are required to notify me by email that the work has been completed. At my earliest convenience, I will then grade the late work and update your grade.

**COMMUNICATION**

Please be aware when you email me with a question or concern to allow 24 hours for a response. In most cases the reply will be much sooner. I believe that prompt and relevant feedback to your questions, concerns, and posts is of extreme importance.

Concerning email, you must put your NAME on the email and YOUR CLASS AND THE ASSIGNMENT OR ISSUE YOU ARE REFERRING TO IN THE SUBJECT LINE OR the reply may be delayed. Please comply with this request to ensure a prompt response from me.

Furthermore, feel free to post questions in discussion threads but address them specifically to me so I know it’s something you want me to look at as soon as possible. Another mode of communication is the class discussion area (Water Cooler) in the course and the general synchronous tool (Wimba). The class synchronous area allows us to chat in "real-time" during a mutually arranged appointment.

**ETIQUETTE**

Please understand that there is a certain type of etiquette that must be upheld in the class when posting in discussion areas and when turning in college work. To this end, refrain from slang, derogatory language, caps, and any potentially offensive forms of expression. Hence, when you approach your instructor or other students with questions or comments, you should always maintain a professional tone.

**DISCUSSION BOARD TIPS**

- Most times you will be replying to the same topic each week. You will stay within the thread to keep the conversation threaded. This does not mean you cannot start your own topic within a topic. If so, start your own with a unique topic.
- Keep your responses short and to the point. Remember, everyone needs to read all of the posts. Try to keep within two paragraphs.
- Be articulate as you can and at the same time exercise brevity.
If you want to post something with more than one point, break it up into two posts. This will allow someone to reply to only one point.

If you post a comment and it does not sound the way you expect it to go back and respond to your own post to clarify your point.

Go ahead and address someone personally. This is great for creating a sense that you are really “speaking” to that person. In fact, it helps all the readers follow the threads in the discussions easily.

Feel free to be funny. Everyone likes humor - especially if you are relating to a personal experience.

Paste Web links into your message to help prove a point or bring attention to a new way of thinking. Just a word of caution: don’t depend on Web links to prove your point, use it as supporting information only. You should always be involved in the discussion drawing from your own knowledge base and your own experiences.

Be aware of your tone – irony doesn’t always work it could be completely misinterpreted. The professor and your classmates can not see your facial expressions online and your comment may be taken the wrong way.

Your posts should be full sentences. Do not use the new IM language derived from writing instant messages on the Web. Not everyone understands the IM language. Besides your discussion responses are to be thoughtful and critical observations about the subject matter.

Only use caps for emphasis otherwise it may sound as if you are yelling.

Be aware of spelling and grammar. Use the same standards that you would in the classroom.

Criticize the idea, not the person. Be constructive in criticism and offer alternatives.

**Grades**

Grades will be posted within one week after the scheduled due date. Grading questions should not be asked before the one week window.

**Assignment Submission**

Please be certain to turn work into the appropriate area under the appropriate title.