Creating and Using Databases for Classroom Instruction & Administration
Florence District 1 – Francis Marion University

Instructor: Dr. Curt Boswell
cboswell@fsd1.org
843.292.1016 (W)
843.669.4973 (H)

Term: Fall, 2007
Course Credit: 3 Graduate Hours
( Francis Marion University)
Contact Hours: 45

Location: FSD1 Technology Lab
319 S. Dargan St.
Florence, SC 29506

Dates/Times:
Mondays: 4:15 – 7:15 pm
Aug 27
Sept 10, 17, 24
Oct 1, 8, 15, 22, 29
Nov 12, 19, 26
Dec 3, 10

On-line Course Materials
Course materials, syllabus, resources, and links are on-line at:
www.curtboswell.com/dbms

Required Text

Course Description
This course provides the knowledge and experience that educators need to understand, design and implement relational Database Management Systems (DBMS) to serve a wide set of goals in educational settings as they adopt data-driven decision making. Course goals and objectives are achieved through group and individual projects that include extensive hands-on experience with Microsoft ACCESS.

Course content includes:
• using DBMS in educational settings;
• fundamental and advanced concepts and terminology;
• basic and advanced design and implementation processes;
• Microsoft ACCESS as a DBMS tool
• design, implementation and use of DBMS for both classroom instruction and administration;
• design, implementation and use of DBMS for data-driven decision-making and school-wide improvement; and
• discussions of issues, emerging developments and trends.

Course Objectives
Upon successful completion of the course, students will be prepared to design, implement and manage DBMS to serve a wide range of goals in educational settings:

• Describe the uses of DBMS within educational settings.
• Identify existing DBMS and describe appropriate uses for a specific educational context.
Course Objectives (cont’d)

- Locate specific information on the Internet through web-based search engines.
- Use search strategies to find information in web-based databases.
- Describe the concepts and terminology related to DBMS.
- Describe the benefits and structure of a relational DBMS.
- Use Microsoft ACCESS to design and implement a basic DBMS.
- Implement the rules of data normalization to improve DBMS design.
- Build tables and construct relationships among them utilizing normalized data.
- Retrieve data with simple queries.
- Design, create and use forms for data entry.
- Define and use queries to access specific data.
- Produce reports to present data in meaningful representations.
- Design and implement a base DBMS to integrate into a specific classroom instructional or work situation.
- Use DBMS to support data management for decision-making and school-wide improvement.
- List and describe advanced DBMS topics and techniques regarding design, data and tables, queries, forms and reports.
- Analyze an educational situation to identify data components and relationships among them.
- Use a student achievement DBMS to guide instructional decisions for classrooms, schools, and districts.
- Discuss a variety of current issues related to using DBMS in educational settings.

Course Grading

The following grades may be earned in accordance with Francis Marion University’s Graduate grading scale: A, B+, B, C+, C, F, W (Withdrawal) or IN (Incomplete).

Beginning with the Fall 2000 semester, Francis Marion University grade reports were made available on line. Near the end of the course, your instructor will provide you with a printed copy of the directions for accessing your grades on line or your instructor will e-mail the directions to you. If you do not have access to the Internet/World Wide Web, please visit the Francis Marion University Office of the Registrar on campus (Stokes Administration Building, Room 118) to sign a grade request form and a printed grade report will be mailed to you.

Every semester students are provided the opportunity to evaluate each course and its instructor so that educational quality may be maintained and enhanced. All students are encouraged to respond to the evaluation with honesty, sincerity, and a sense of confidentiality.

The evaluation is administered during class time with the instructor leaving the room while a designated student hands out and then collects the forms. This student also delivers the sealed envelope containing the completed forms to the district office or the contracting agency office for mailing to Francis Marion University. These evaluations are completely anonymous and faculty do not receive any feedback until grades have been turned in to the Registrar.

Upon noting that these procedures of evaluation have not been followed, a student
Course Grading (cont’d)

may contact the Office of the Provost at (843) 661-1286 in order to confidentially inform
the administration of such failure to follow procedures.

Grade Distribution

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90-100</td>
</tr>
<tr>
<td>B+</td>
<td>85-89</td>
</tr>
<tr>
<td>B</td>
<td>80-84</td>
</tr>
<tr>
<td>C+</td>
<td>75-79</td>
</tr>
<tr>
<td>C</td>
<td>70-75</td>
</tr>
<tr>
<td>F</td>
<td>Below 70</td>
</tr>
<tr>
<td>W</td>
<td>Withdraw</td>
</tr>
<tr>
<td>IN</td>
<td>Incomplete</td>
</tr>
</tbody>
</table>

Assignments

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet searching-The “Hidden Web”</td>
<td>10 pts</td>
</tr>
<tr>
<td>Terminology Quiz</td>
<td>10 pts</td>
</tr>
<tr>
<td>Data Normalization Activity</td>
<td>10 pts</td>
</tr>
<tr>
<td>Mid-term Project</td>
<td>20 pts</td>
</tr>
<tr>
<td>Final Project</td>
<td>40 pts</td>
</tr>
<tr>
<td>Class Participation</td>
<td>10 pts</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100 pts</strong></td>
</tr>
</tbody>
</table>

Internet Searching-The “Hidden Web” (10 pts)

Students will be introduced to the “hidden web” to search databases. As part of this assignment, students will locate, read, and share one site/article on using data to make decisions for school or district improvement. A one-page (max.) description will be turned in.

Terminology Quiz (10 pts)

A working knowledge of common terminology is essential in the design and utilization of DBMS.

Data Normalization Activity (10 pts)

Standards for data entry and DBMS design insure accuracy and ease of data retrieval. After instruction, students will demonstrate their knowledge of data normalization procedures.

Mid-term Project (20 pts)

Students will design and create a DBMS in Microsoft ACCESS using features presented in the class to this point (tables, queries, forms, data entry, etc.). The mid-term will be a “warm-up” for the Final Project and must be relevant to the student’s current job assignment. Complete, detailed instructions will be provided along with class lab time for assistance from the instructor.

Final Project (40 pts)

Students will design and implement a DBMS project for a real educational context, i.e., for your class, school, job assignment, or the world at large. In many ways, all other assignments in this class are designed to prepare you for this project. You are encouraged to develop something of particular interest to you that will be useful beyond the course. Complete, detailed instructions will be provided with assistance from the instructor in a “Final Project Workshop” format.
Assignments (cont’d)

Class Participation (10 pts)
This part of the evaluation will consider your attentiveness during class and participation in class discussions, as well as punctuality and timely arrival and return from breaks.

Attendance
The following statements represent School of Education policy regarding attendance in Education Professional Development (EDPD) 525 courses:

- No absences are allowed, except in the case of emergencies.
- If a student is absent more than 15% of the total number of class meetings, the course instructor has the right to withdraw the student from the course.

Instructors may choose to allow students to make up class time to avoid being withdrawn from the course; however, this is solely the discretion of the course instructor. Class make up time must be scheduled with the instructor ahead of time, at his or her convenience, and must be supervised by the instructor.

Tardiness
Students are expected to be in class at the beginning of the stated class time. Excessive tardiness may result in a student being dropped from the class by the instructor.