1 General Information

Instructor: Dave Mooney  
Office: MCT 154  
Office Hours: MW: 14:30 - 15:30; TR: 15:00 - 17:00; or any time you can find me  
Phone: 717-477-1405 (office)  
home page: web.cs.ship.edu/~djmoon  
E-mail: djmoon@cs.ship.edu

Texts:  
Reference: Date, ”An Introduction to Database Systems, 8th ed.”, Addison-Wesley 2004

2 Course Description

Presents a detailed examination of the theory and practical issues underlying the design, development, and use of a DBMS. Topics include: characteristics of a well-designed database; high-level representation of an application using ER modeling; functional dependency theory, normalization, and their application toward a well-designed database; abstract query languages; query languages; concurrency; integrity; security. Advanced topics may be included; e.g., distributed databases; object-oriented databases. Students will apply theory to practice in a number of projects involving the design, creation, and use of a database.

3 Prerequisites

CSC 111.

4 Attendance

Attendance at lectures is expected; however, roll be not be taken in every lecture. You are responsible for contacting the instructor regarding making up any work missed. Generally, there is a strong correlation between the number of classes a student misses and the quality of his/her grade.

5 Grading

Your final grade is based on the following (percentages may be adjusted no more than ±5 percent, dependent on number of assignments):

- Semester Tests 40%  
- Final Exam 25%  
- Projects 20%  
- Quizzes 15%

5.1 Exams

There will be 2 semester tests and a final exam. The final will be given during Exam Week, and will be comprehensive.
5.2 Projects
Several projects are anticipated (3 - 5), which will collectively account for 25% of the final grade. The projects will involve the creation and use of a relational database. Projects are due at the beginning of class on the announced due date. Projects turned in late will generally be penalized according to the following formula:

\[
\begin{array}{c|c}
\text{days} & \text{points} \\
\hline
1 & 10 \\
2 \leq n \leq 7 & 10 + 2^{n-1}
\end{array}
\]

5.3 Homework
Homework will be assigned on a regular basis throughout the semester. It will not be collected. It is essential that students make every effort to complete homework assignments, since they are crucial to understanding the material and are the basis for quiz and test questions.

5.4 Quizzes
There will be weekly quizzes on the material covered the previous week. Quizzes will always be given on the last class of the week.

5.5 General Information
If you believe an exam, project, or quiz was not graded properly, you have one week after its return to argue your case. After one week, no requests for grade changes will be considered. Please save all graded items until the end of the semester in case of a discrepancy in your final grade. If at any time you are having a problem with any aspect of the course, please do not hesitate to meet with the instructor.

All work is expected to be your own. While it is normal for students to ask one another for advice, assignments are not intended to be group undertakings (unless that is explicitly part of the assignment). Your work should reflect the amount of effort you have invested in an assignment, not someone else’s. It is NOT acceptable to:

- Jointly complete an assignment with someone else.
- Give someone a coded project for them to “see how it works”.
- Email all or a portion of an assignment to someone.

If at any time you have questions with respect to the amount or kinds of help that are considered acceptable, please ask the instructor.

Plagiarism of any sort will not be tolerated. Any assignment that is not the original work of the student will result in a 0 for that assignment. University policy on plagiarism will be followed.

5.6 Cell Phones
Cell phones are not to be seen or used in class for any reason. Using a cell phone or having it ring during class will result in a one point deduction from your final average for each infraction. Use of a cell phone during a test or quiz will result in a zero for that test or quiz.
6 Syllabus

The following list class dates and the material to be covered this semester.

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<thead>
<tr>
<th>Meeting Dates</th>
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<td>05-05 Exam</td>
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<th>Topics</th>
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<tbody>
<tr>
<td><strong>Topic</strong></td>
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<tr>
<td>Motivation and DBMS Architecture</td>
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<td>Evolution of DBMSs</td>
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<td>ER/EER Model</td>
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<td>ER/EER Model</td>
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<td>Relational Model</td>
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<tr>
<td>Basic concepts</td>
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<td>Mapping EER to relational model</td>
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<td>Test 1</td>
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<td>SQL</td>
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<td>Functional dependencies and normalization</td>
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<td>Test 2</td>
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<td>Implementation</td>
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<td>Embedded programming</td>
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<td>Disk storage and access</td>
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<td>Concurrency control</td>
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<td>Recovery*</td>
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<td>Query implementation*</td>
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<td>Security*</td>
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Shippensburg University and its faculty are committed to assuring a safe and productive educational environment for all students. In order to meet this commitment and to comply with Title IX of the Education Amendments of 1972 and guidance from the Office for Civil Rights, the University requires faculty members to report incidents of sexual violence shared by students to the University’s Title IX Coordinator.

The only exceptions to faculty members’ reporting obligations are when incidents of sexual violence are communicated by students during classroom discussions, in writing assignments for class, or as part of University-approved research projects.

Faculty members are obligated to report allegations of sexual violence or any other abuse of a student who was, or is, a child (a person under 18 years of age) when the abuse allegedly occurred. Such reporting must be made to the Shippensburg University Police (717-477-1444), the Department of Human Services (DHS) at 800-932-0313, and the University’s Office of the Vice President of Student Affairs (717-477-1308).

Information regarding the reporting of sexual violence and the resources that are available to victims of sexual violence are set forth at: http://www.ship.edu/No_More/Sexual_Misconduct/Sexual_Misconduct_Information/.

Shippensburg University Title IX Coordinator

Carlesha Green Halkias, J.D.
Shippensburg University
1871 Old Main Drive
Shippensburg, PA 17257-2299
717-477-1123, extension 1161
cghalkias@ship.edu

Department of Education

Website: Office for Civil Rights, Department of Education
Contact via the Web: Contact the Office for Civil Rights (Education)

E-mail: ocr@ed.gov
Address: 400 Maryland Ave SW, Washington, DC 20202-1100
Phone Number: (202) 245-6700
Toll-free: (800) 421-3481
TTY: (800) 877-8339

Additional information regarding domestic violence, sexual assault, dating violence and stalking directed toward students may be found at Ship Says No More, which is located at: http://www.ship.edu/No_More/Sexual_Misconduct/Sexual_Misconduct_Information/.
The information includes interim measures available, processes, rights, options and resources.
The College of Arts & Sciences Advising Center (CASA): located in DHC 216, CASA is a walk-in office that offers several types of academic support, from advice and help on time management, test anxiety, and study skills to discussions about what major might be right for you. It is open Mon-Thurs from 9:00 to 4:00 and Fri from 9:00 to 12:00. You can also email (casa@ship.edu) or call (717-477-1150) to set up a time to meet with a success coach or faculty advisor.