CSCI 4/5560: Database Management Systems
Fall 2019

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Office Hours:
Monday & Wednesday: 10:00 – 12:00 & 14:30 – 16:00
Other times by appointments

Course Information:


Course webpage: http://www.cs.mtsu.edu/~zdong/4560

Covered concepts: The relational and object models of database design along with relational algebras, data independence, functional dependencies, inference rules, normal forms, schema design, modeling languages, query languages, and current literature.

Learning outcomes: Upon successful completion of this course, a student will be able to

- use a widely-used database management systems (Oracle, MS SQL, MySQL),
- understand the principles of database design
- have experience in web database applications
- understand the theoretical properties of relational databases
- understand and be able to apply appropriate development methodologies of data analysis, design, and use appropriate modeling techniques and notations for databases
- understand the concept and need for conceptual modeling and use the entity-relationship model to design a database
- read, construct and validate diagrammatic specifications of data-oriented systems
- analyze a given problem in a small team and to design and implement the solution of the problem individually
- understand the three-level ANSI-SPARC architecture for database systems
- write SQL statements for database query tasks specified in plain English
- understand the need for normalization and the kinds of normal form
- design and validate relational models
Course Assignments
Homework (6-7) 25%
Midterm Exams (3) 50%
Final Exam 25%
Total 100%

Grading scale
Letter grades will be determined using a standard percentage point evaluation as outlined below.

<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% - 74%</td>
</tr>
<tr>
<td>D+</td>
<td>65% - 69%</td>
</tr>
<tr>
<td>D</td>
<td>60% - 64%</td>
</tr>
<tr>
<td>F</td>
<td>0% - 59%</td>
</tr>
</tbody>
</table>

Your final grades will be calculated based on the above table with the following exceptions:

- If the exam average is an F, then the course grade is an F.
- If the homework average is an F, then the course grade is an F.

Class Policies

Cell Phone: Please silence all cell phones and beepers. If the lecture is interrupted by a cell phone or beeper, the student will answer a question later in the class.

Attendance: Attendance is expected and absences do not excuse one from class responsibilities. If for some unavoidable reason you must miss class, obtain class notes, handouts, and assignments from another class member or course webpage. Students can earn up to 2 bonus points if they are "active" enough, i.e. asking and answering questions in the class.

Exams: Examinations must be taken at the published times. No make-up exams will be offered unless there is an unavoidable extenuating circumstance (at the discretion of the instructor).

Grade: It is guaranteed that you will get at least 20% points for any homework or project you submit. Each homework/project has ONE deadline only. No submission will be accepted after the deadline.

Final Exam: Students can opt out the final exam if he or she get 80% or above on EACH homework, project, and exam. At last class of the semester, instructor will notify each student his qualification and hand out final grades based on his/her achieved performance so that students can make their own decisions.

Zero Tolerance of Academic Misconduct: The class has a zero tolerance policy of academic misconduct. Academic misconduct includes cheating, plagiarizing, research misconduct, misrepresenting one’s work, and inappropriately collaborating. This applies to any work students turn in for evaluation or course credit. Definitions can be found at: http://www.mtsu.edu/~csdept/Academics/academicIntegrity.htm. If a student is found responsible for committing an act of academic misconduct, he/she will get F on this course.
and will be reported to the university. If you are working on a lab machine, make sure your work is stored under your personal account so that other students cannot access it.

University Policies

Lottery Scholarship: Do you have a lottery scholarship? To retain the Tennessee Education Lottery Scholarship eligibility, you must earn a cumulative TELS GPA of 2.75 after 24 and 48 attempted hours and a cumulative TELS GPA of 3.0 thereafter. A grade of C, D, F, FA, or I in this class may negatively impact TELS eligibility.

If you drop this class, withdraw, or if you stop attending this class you may lose eligibility for your lottery scholarship, and you will not be able to regain eligibility at a later time.

For additional Lottery rules, please refer to your Lottery Statement of Understanding form (http://www.mtsu.edu/financial-aid/forms/LOTFEV.pdf) or contact your MT One Stop Enrollment Coordinator (http://www.mtsu.edu/one-stop/counselor.php).

Academic Misconduct: It is expected that all work for this class (including exams, homework and open labs) is your own. The university policy for academic misconduct will be followed. Academic misconduct includes the following behaviors:

- Plagiarism. The adoption or reproduction of ideas, words, statements, images, or works of another person as one's own without proper acknowledgement.
- Cheating. Using or attempting to use unauthorized materials, information, or study aids in any academic exercise. The term academic exercise includes all forms of work submitted for credit or hours.
- Fabrication. Unauthorized falsification or invention of any information or citation in an academic exercise.
- Facilitation. Helping or attempting to help another to violate a provision of the institution code of academic misconduct.

For more information, please refer to the following links: http://www.mtsu.edu/~csdept/Academics/academicIntegrity.htm

Unofficial Withdrawals: Federal regulations require that students who cease class attendance but do not officially withdraw from the University must be reported so that future financial aid will cease and/or the student will be required to return funds. Therefore, during the term I will be required to complete a roster indicating those students who have stopped attending class without officially withdrawing. Faculty members are not required to check attendance each day; however, you may use project submission deadlines, exams, quizzes, advising appointments, or other methods I choose may be used to determine unofficial withdraws.

Student with Disabilities: Students with documented disabilities are entitled to reasonable accommodations if needed. If you believe you need accommodations, please see me and the Office of Disabled Student Services (898-2783). No accommodations will be made unless verified by the Office of Disabled Student Services. For more information about the office, please check their website: http://www.mtsu.edu/dssemail/.

Title IX Statements: MTSU faculty are concerned about the well-being and development of our students and are legally obligated to share reports of sexual assault, dating violence, domestic violence and stalking with the University’s Title IX coordinator to help ensure student’s safety.
and welfare. Please refer to MTSU’s Title IX site for contact information and details. http://www.mtsu.edu/titleix/.

This syllabus represents a general plan for the course and deviations from this plan may be necessary during the duration of the course. I reserve the right to modify course policies, the course calendar, assignment point values, and due dates.