CSCE 4350 Introduction to Database Systems

Course Syllabus

Instructor: Dr. Ryan Garlick
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Office Hours: Tu 2:30-4:00 pm or by appointment
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unt.instructure.com The class materials are on Canvas
Textbook: No Textbook - Lecture Notes, Slides, and Online Resources

Topics

This course covers topics including logical and physical database system organization, logical models, design issues, and secondary storage considerations. Students develop and practice skills through the use of projects and real world database creation

This course is blended online and most instruction and assignments will occur online.

Prerequisites: CSCE 2110 (or equivalent). This pre-requisite is enforced.

Course Outcomes:

- Analyze a problem to determine its data requirements.
- Create a database that satisfies the given data requirements.
- Store, maintain and access data in a database using SQL.
- Understand and demonstrate how B+-tree and hashing speed data access.
- Understand and use the theory of functional dependencies for DB design.

Evaluation

Homework: There will be regular homework assignments and quizzes given through Blackboard. Homework is to be completed individually unless specified otherwise.

Exams (Project): There will be a midterm and a final exam. The final exam is comprehensive.

No late homework, projects, exams, quizzes or assignments of any kind are accepted. There are no exceptions to this - sorry.

Approximate Course Grading (subject to change)

Midterm	15%
HW / Quizzes / Assignments	70%
Final Exam	15%

The final course grade will be based on the following scale:

90 – 100 **A** 80 – 89 **B** 70 – 79 **C** 60 – 69 **D** Below 60 **F**

Tentative Topic Schedule

Week	Topics
1	Introduction
2	Database Design
3	SQL 1
4	SQL 2
5	SQL: Table Transformation
6	SQL: Business Metrics
7	Database Backed Websites
8	Midterm
9	phpMyAdmin
10	Indexes and B-Trees
11	NoSQL
12	APIs / REST
13	Break
14	Firebase
15	Review and Special Topics
16	Final Exam

Course Policies

- The Department of Computer Science cheating policy will be followed. Any student caught cheating will receive an automatic F for the course and further disciplinary action may be taken. This will include those who violate the rules, as well as those who permit such actions.
- Students are expected to do their own work on homework/programming assignments. I encourage everyone in the class to discuss the assignments. However, any work/code turned in must be your own. Do not share quiz or exam questions.
- All exams including the final will be given only once. If one regular exam is missed WITH AN EXCUSED ABSENCE, the comprehensive final will replace this grade. Only one regular exam grade can be replaced in this way. If more than one regular exam is missed, the second missed exam will be given a grade of 0. The final exam must be taken or a 0 will be given for the final exam.
- Homework assignments must be turned in on time for full credit (on the due date). No assignments may be turned in late.

Americans with Disabilities Act

The Computer Science Department cooperates with the Office of Disability Accommodation to make reasonable accommodations for qualified students (cf. Americans with Disabilities Act and Section 504, Rehabilitation Act) with disabilities. If you have not registered with ODA, we encourage you to do so. If you have a disability for which you require accommodation please discuss your needs with the instructor or submit a written Accommodation Request on or before the fourth class day.