CS 340
Introduction to Databases
Fall 2019

INSTRUCTOR: Julianne Schutfort **E-mail:** schutfoj@engr.oregonstate.edu
Office: 1103 KEC
Meetings: Tu&Th 12:00-1:20pm
Prerequiste: CS 290

TAs: Branden Hitchcock & Sanad Saha **Office Hours:** Posted on canvas

Textbooks

"Fundamentals of Database Systems", Elmasri & Navathe. 7th Edition, Pearson, ISBN/SKU 0-13-397077-9. (required)

Canvas Announcements, office hours, weekly homework assignments, group activities, readings and other course information will be placed on Canvas.

Course Catalog Description: Design and implementation of relational databases, including data modeling with ER or UML diagrams, relational schema, SQL, relational algebra, user interfaces and administration.

Course Objectives:

1. **Describe** the difference between a relational database and a flat file
2. **Model** a moderately complex data set by using an ER diagram, and derive a relational schema from that diagram
3. **Create** a relational database from a relational schema
4. **Create** multiple indices in a relational database, and explain when and why such indices are appropriate
5. **Formulate** SQL statements for data manipulation
6. **Formulate** simple queries in relational algebra by using projection, selection, product, and join operations
7. **Describe** the components and interfaces of a Web-based database system
8. **Design** and **implement** a Web-based relational database system, using one or more scripting languages (e.g., PHP) and an open-source database development system (e.g., MySQL)

Grade Evaluation: Your course grade will be based on the following:

Homework Assignments	35%
In-Class Activities	15%
Midterm	20%
Project	30%
TOTAL ----------	**100%**

Homework Assignments:

- Assignments include a mixture of written documents and database implementations.
- You will turn in your written assignments as a **pdf** in Canvas.

- Assignments are to be turned in **by 11:59pm** on the date they are due, otherwise an assignment is considered late.

Activities:

- Activities will be completed in class and due at the end of class. You must be present to receive credit. Activities are usually on Thursday. Activitiies are graded on accuracy

Exam:

There will be one midterm exam the dates are on Canvas. The exam is designed to take 50 minutes and will cover all topics covered in the course to that point. You can use one double-sided page of notes.

Project: Due Thursday December 11th at noon

You will fully implement the database for a real-world application and develop a web interface for this application using HTML, Javascript, PHP and MySQL. For this project you can choose to work in a group of 2 to 4 people. Included in the project grade is the proposal, ER diagram, relational schema, website layout & wireframes, user documentation, written report, class presentation and peer review.

Grading Policies:

- Any requests for extensions/special accommodations must be made in advance, in writing and sent to the instructor via Canvas messaging.
- Homework and Projects will be accepted up to 1 day late for a 10% penalty.
- Any **disagreement in scoring** must be addressed within one week of the work being graded. All questions about grading must be placed in the "Assignment Comments" section of the Canvas submission for that assignment. If a response to your question is not posted within 48 hours you can email the TA requesting that they review the assignment submission.

Grading Scale: Note: Numerical scores will be rounded to the nearest integer

A	**93 or greater**
A-	**90 - 92**
B+	**87 - 89**
B	**83 - 86**
B-	**80 - 82**
C+	**77 - 79**
C	**73 - 76***
C-	**70 - 72**
D+	**67 - 69**
D	**63 - 66**
D-	**60 - 62**
F	**less than 60**

* REMINDER: A passing grade for core classes in CS is a C or above. A C-, 72 or below, is not a passing grade for CS majors.

Lecture/ Attendance Policy:

- Be respectful of your classmates' right to learn and my right to teach by following these rules:
- No talking, reading newspapers, or playing with your cell phone.
- Class attendance is not required, but it is **STRONGLY ENCOURAGED.**
- When a class is missed, it is the STUDENT'S responsibility to obtain any notes, assignments, etc. from classmates.
- Please be on time for lecture because it can be disruptive to other students, as well as the instructor.
- If the instructor is late for a lecture, please remain in the classroom for 10 minutes.

Students With Disabilities: Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS immediately at 737-4098.

Academic Honesty and Student Conduct: I encourage students to work together and learn from one another on assignments. However, I do expect you to turn in your OWN work. Working with someone does not include copying someone else's work and changing a small amount of that work, such as variable names, comments, spacing, etc. During group projects you and your partners may turn in one assignment per group with everyone's name attached. Working together is discouraged on exams and the final. At NO point should you copy work from the internet, and if you do copy material from an external resource, then you need to cite the resource and author(s). Cheating and plagiarism are not taken lightly! You will receive a zero on your first abuse of these rules. In the case of shared work, the student sharing the work and the student copying the work will both receive zeros. On the second abuse, your name(s) will be given to the EECS department, where they will handle the details. Please read the department, college, and university dishonesty policies.
http://oregonstate.edu/studentconduct/code/index.php.