San José State University
Department of Computer Science
Summer 2025
CS 157a – Database Management Systems

Course and Contact Information

Instructor:	Ramin Moazeni, PhD
Class Hours:	TTh: 11:00AM - 1:00PM
Office Hours:	**TTh** 1:00-1:30pm (MH422)
Email:	Ramin.Moazeni@sjsu.edu
Classroom:	MH 422
Prerequisites:	CS 146 or instructor consent

Catalog Description
General: Current, classical database systems. Entity-relationship and enhanced entity models. Relational model, algebra, calculus. Current, emerging SQL standard. Embedded, Dynamic SQL. Application perspective on transactions and security. Interactive and programmatic interfaces to database systems. Application programming project using commercial database system.

Learning Outcomes

To introduce students to the purpose of Database systems and databases, as well as common users of such systems.

- To teach students about the relational model and relation algebra.
- To teach students about design theory (such as normalization, etc.) and algorithms that help
- determine if a given database's tables are organized in a reasonable way.
- To teach students about real-world database system usage, architectures and components. Some
- example systems that might be considered are: Oracle, MySql, Postgres, Access, DB2, and SQL
- Server.
- To teach students about SQL, the standard language for interacting with a database.
- To teach students how to interact with a database system from a programming language such as Java,
- JSP, JavaScript, C, PHP, Perl, etc.

Required Texts

(Required) Raghu Ramakrishnan, Johannes Gehrke
Database Management Systems
3rd Edition
ISBN-13: 978-0072465631
ISBN-10: 0072465638

Important Dates:
Class starts: Tuesday, June 3
Academic Holiday: Thursday, June 19 - Juneteenth Day (Campus Closed)
Midterm Exam: Thursday, July 10 (11am-1pm)
Class ends Thursday, Aug 7
Final Exam: Thursday, Aug 7 (11am-1pm)

Course Requirements and Assignments

SJSU classes are designed such that in order to be successful, it is expected that students will spend a minimum of forty-five hours for each unit of credit (normally three hours per unit per week), including preparing for class, participating in course activities, completing assignments, and so on. More details about student workload can be found in University Policy S12-3 at http://www.sjsu.edu/senate/docs/S12-3.pdf. Note that University policy F15-12 at http://www.sjsu.edu/senate/docs/F15-12.pdf states that "Attendance shall not be used as a criterion for grading."… "Students are expected to attend all meetings for the courses in which they are enrolled as they are responsible for material discussed therein, and active participation is frequently essential to ensure maximum benefit to all class members. In some cases, attendance is fundamental to course objectives; for example, students may be required to interact with others in the class. Attendance is the responsibility of the student."… "Participation may be used as a criterion for grading when the parameters and their evaluation are clearly defined in the course syllabus and the percentage of the overall grade is stated."

Assignments

Assignment specification and their corresponding due dates will be posted on Canvas.

The submissions are due at midnight on the due date. The assignments are to be submitted on time. A penalty of 10% per day is applied to late submissions. No assignments will be accepted after a week past its due date.

Course Project:

A programming group project of your choice related to the course. Detailed guidelines including milestones for the project will be posted on Canvas in the second week of the semester.

Absolutely NO late submission for the course project.

Exams

Exams will consist of questions and problems aimed at assessing student mastery of course topics. Conceptual questions may be in the form of essay or multiple-choice format. Problems will require the production of (or correction of) SQL code, data models,or similar output. All exams are closed book and note.

Both Midterm and Final exams will be held online over Canvas and need to be taken in-person during assigned class time.

The exams are based on lectures, homework assignments, and reading materials covered before the exam's date.

Quizzes

Quizzes will be assigned throughout the semester to encourage you to learn, study and review the concepts and materials we discussed in the lecture. These will generally be problems covered in the lectures. Each quiz will be scored/weighted evenly.

Quizzes are due before the end of the day they are assigned. Make sure to check Canvas regularly. Quizzes can not be made up if missed.

Grading Policy

Your individual class grade will be weighted as follows:

- Quizzes: 10%
- HW Assignments: 20% (Individual)
- Project: 20% (Group)
- Midterm exam: 25% (Individual)
- Final exam: 25% (Individual)

Your grade for the course is based on the exams, the homework, and quizzes. Grades are calculated by weighting the scores as defined below.
A: ≥93, A-: ≥90, B+: ≥87, B: ≥83, B-: ≥80, C+: ≥77, C: ≥73, C-: ≥70, D+: ≥67, D: ≥63, D-: ≥60, F: <60

Please note that there will be no curving or rounding up of grades. Final grades will be assigned strictly based on the weighted average as outlined above.

Cheating and Plagiarism

All homework assignments and exams must represent your own individual work. While it is acceptable to engage in general discussions about the assignments or to consult external resources for inspiration, you may not copy any content from others without proper attribution.

If you use code or ideas from an external source (e.g., Stack Overflow or any other website), you must include a comment at the top of your submission with the URL of the source. This allows me to review the material if needed.

You are strictly prohibited from sharing your assignments or code with other students. If another student submits your work, both students will receive a zero on the assignment, regardless of who shared or copied.

Violations of academic integrity will be handled as follows:

- First offense: Zero on the assignment or exam involved.
- Second offense: A final grade of F for the course.

Please take this policy seriously. Academic honesty is essential to your learning and to maintaining fairness for all students.

Accommodations

If you require course accommodations due to a disability, or if you need to make special arrangements in case of an emergency evacuation, please contact me as soon as possible—either by appointment or during office hours.

In accordance with Presidential Directive 97-03, students requesting accommodations must register with the Accessible Education Center (AEC) to establish eligibility. You can find more information and begin the registration process at: http://www.sjsu.edu/aec

The AEC is responsible **for coordinating accommodations and ensuring equal access to educational opportunities.**

University Policies

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs' Syllabus Information web page at http://www.sjsu.edu/gup/syllabusinfo/