

CS 331 Database System Design and Management

Course Syllabus for Fall 2024

Instructor: Fatima Yusuf

Meeting Location: KUPF 206

Meeting Days/Times: Mon & Wed 8:30 AM – 9:50 AM

Instructor Office: GITC 2124

Office Hours: Mon & Wed 2:30 PM – 3:55 PM

Email: fatima.yusuf@njit.edu

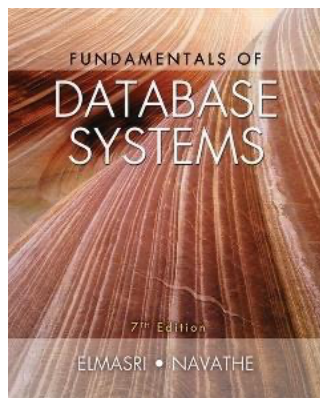
Course Description/Topics to be covered:

The objective of the course is to introduce modern database systems. It focuses on the following issues: data models, conceptual data models, the Entity-Relationship model, the Relational model, formal database query languages, the Relational algebra, the standard database language SQL, formal database design theory, functional dependencies and normal forms, and transaction processing. Students will get hands-on experience with modern database management systems using the standard database language SQL.

Prerequisite(s): CS 114 or equivalent.

Textbook:

Fundamentals of Database Systems, 7th Edition, R. Elmasri and S.B. Navathe Pearson, © 2016.



This textbook will be used by the instructor throughout the semester. Students are not required to purchase the textbook; Notes and book slides will be provided on canvas.

Class Attendance

Class attendance is mandatory. Getting to class late or leaving early counts as half an absence.

Homework

There will be four homework assignments. Homework **must be submitted individually** through Canvas by the due date and should be your own work. **Late submission will not be accepted** except for special circumstances (such as medical problem), for which you must provide documentation and the final decision will be determined by the instructor.

Some of the homework assignments will require you to write queries that produces a specified output. No credit will be given for queries that does not run. Getting a correct solution will often require that your solution be written, tested, and then rewritten multiple times until it fulfills the specification.

Class Participation

Asking and answering questions, solving/submitting classwork problems — individually or in groups — is a regular part of class meetings. Classwork assignments might be given from time to time during lectures, in which will count toward class participation grade. You may work individually or in groups (maximum of two people). If you decide to work in group, only one person must submit the work through canvas and make sure to include both of your names on the submitted assignment to get credit. **No late submission will be accepted, and all classwork must be done in class** except for special circumstances (such as jury duty or medical problem), for which you must provide documentation.

Make sure to bring your own device, laptop, to class to be able to complete given classwork.

Cell phones must be turned off during class. During class time you may not play games, text, email, browse the web or engage in other activities that are not part of the class.

Course Communication

Canvas (canvas.njit.edu) will be used to post lecture notes, to submit homework and for course discussion. You may also email instructors and classroom assistants.

Collaboration and Individual Responsibility

You are encouraged to study with others; collaboration is a basic learning technique. You may not take credit for the work of others. You must understand and be able to explain all work that you submit.

Overall Course Score Formula

Homework	40%
Classwork/participation	5%
Attendance	5%
Midterm	20%
Final Exam	30%

The letter grade is based on the overall course score.

Grade Formula						
Grade	A	B+	B	C+	C	D
Overall Course Score Cutoff	90	85	80	75	70	60

Exams

There are two exams; the midterm and final exams. The midterm exam is on Wed, Oct 23rd, and the date for the final exam to be determined.

There are NO makeup exams. If you miss the midterm exam because of a documented special circumstance (such as medical problem) you may receive an imputed grade based on the final exam (the decision will be determined by the instructor).

You must bring ID to all exams. Students with special needs are advised to make arrangements with the Office of Accessibility Resources and Services, Kupfrian Hall 201.

Grade Appeals

If you believe that you deserve more credit than you have been awarded on a particular exam problem, you may request, **at the time the exam is returned**, that it be regraded. Your entire exam will be regraded, which may result in points being added or subtracted.

If you believe that you deserve more credit than you have been awarded on a particular homework problem, you may request, **within 48 hours of the grade being posted**, that it be regraded. Your entire homework will be regraded, which may result in points being added or subtracted.

University Code on Academic Integrity

“Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at:

njit.edu/policies/sites/policies/files/academic-integrity-code.pdf.

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university.

If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu”

This course expects students to work without artificial intelligence (AI) assistance in order to better develop their skills in this content area. As such, AI usage is not permitted throughout this course under any circumstance.

Accommodations

If you are in need of accommodations due to a disability please contact the Office of Accessibility Resources & Services (OARS), Kupfrian Hall 201, to discuss your specific needs. A Letter of Accommodation Eligibility from the OARS authorizing your accommodations will be required.

You will be informed of any modifications of this syllabus during the semester.