CCNY | Grove School of Engineering
Course Syllabus | Fall 2024

We 5:00PM - 7:30PM

Course Information

Number	Credits & hours	Course name	Instructor
CSc 33600 S	3/3	Intro. to DBMS	Prof. Sheng Chen https://www.linkedin.com/in/shengminchen/
Please download **Slack App** and Join below workplace immediately: https://join.slack.com/t/slack-e7x6943/shared_invite/zt-2ovjfs1ow-ZPMG77srdAfkOG0hWHqpow Please join **#general** channel in this workplace, it will be dedicated for this course, and all the announcements will therefore be posted there. Note: all announcements go to Slack, I will not likely use Blackboard, Email, CUNYFirst			

Textbook, title, author, and year

- A First Course in Database Systems, 3/E Jeff Ullman & Jennifer Widom, Prentice Hall 2008. ISBN-13:9780136006347
- Supplemental Study and Practice Material https://www.w3schools.com/sql/default.asp
- intro to SQL and RDBMS https://www.coursera.org/projects/introduction-to-relational-database-and-sql

Specific course information

- Basic concepts of DBMS; Relational Model; Introduction to SQL; Entity-Relationship Model; Databa in se Design Theory; Database Programming; Constraints and Triggers; Transactions; Views and Indexes; Authorization.
- Prereq.: CSc 21200, CSc220000 and CSc 22100
- Required course

Goals for the course and Relationship to student outcomes

I - introductory-level; R - reinforced-level; P - program-level

a. knowledge of entity relationship data model & database design principle based on this modeling concept	*I*

b. knowledge of relational data model & fundamental meaning of relational algebra	*I*
c. knowledge of SQL to write out queries & realize data manipulations for relational databases	*I*
d. knowledge of implementing data constraints, views, triggers, and stored routines to enhance data-independence and information hiding	*I*
e. knowledge of utilizing major database management systems (e.g. MySQL) to populate data instance & develop database-oriented computations in real life	*I*
f. basic understanding of transaction processing	*I*

Semester Schedule

(Tentative - Subject to change)

***P : in person**			**Homework**	
#	**Date**	**Topics**	**Reading**	**Exercise**
0	8/28	Course Structure and Introduction to DBMS	Chapter 1. Join Zoom Meeting https://ccny.zoom.us/j/7876272643?pwd=Q1d4UVdNOXgvNEwrWlZJMjVMeTN6UT09&omn=85937414894 Meeting ID: 787 627 2643 Passcode: 417119	
1	9/4	No Class: Class Canceled		
2	9/11	The relational model of data	2	
3**P**	9/18 **P**	Introduction to SQL/ ER model	6.1-6.5	
4	9/25	SQL/ ER model cont.	4	
5	**10/2**	**No Class - CUNY SCHOOL**		

6	10/9	SQL/ ER model cont	3	
7**P**	10/16**P**	Logic for relations | Design theory for relations | Constraints, Views and indexes, SQL aggregation, SQL operators	5	
8	10/23	1. Supplemental Study Database programming (ie Database to JDBC or other Tech Stack integration) or Download here 2. Midterm Exam Topic	7, 9.6-9.7	
9	10/30	Group Project CheckPoint see detail below + Exam Review	8	
10 **P**	11/6 **P**	Exam #1	20% of Grade	
11	11/13	SQL string operators, transaction SQL Recursion / Stored Procedure,triggers	6.6	
12	11/20	Data Governance, FR/NFR	10.1	
13	**11/27**	**No Class - CUNY SCHOOL follow Friday Schedule**		
14 P	12/4 **P**	Optional: Authorizations, Data Normalization		

15	12/11	Class or Group Breakout session		
16	12/18	Group project Final Demo	30% of final grade	

Grading Criteria

Midterm 20%
Project mid-pitch: 10% final demo 30%
Attendance 15%
Homework: 25%

Extra Credit	Qualified SQL/DB Certification between midterm and final exam = +5% Project Enhancement = +3% each (9% max)

Optional Two Extra Credit: Based on your Exam 1's Weakness, you can choose from below two recommended options. (If you have any other preferred certificate you must get my approval, it will needs to have minimum 20 Hr, and it will need to cover at least one of below deep dive or Both)

Option 1: SQL Joining + entity relationship
https://www.coursera.org/learn/sql-practical-introduction-for-querying-databases

Option 2: Database design + Modeling
https://www.coursera.org/learn/relational-database-design

Join Zoom Meeting
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