CS/SE 4347, Database Systems , Spring 2024

Course # 24921 / 24950 , Sec 006

M/W 2:30pm - 3:45 pm, GR 2.530

Instructor and TA

Role:	Name	Office : Hours	Phone	Email
Instructor:	Dr. Weili Wu	W 3:45 - 5:00 pm, ECSS 3.229	883-2194	weiliwu@utdallas.edu
TA:	Xiao Li	TBD		xiao.li@utdallas.edu

Schedule: lecture, homework and examination schedule
Web Pages: Main (http://www.utdallas.edu/~weiliwu/CS4347_S2024/CS4347_S2024.htm), Class Notes, Instructor Announcements, TA Announcements .

Text Book: Elmasri and Navathe, Fundamentals of Database Systems, 6th Edition, Addison Wesley, ISBN-13: 978-0-13-608620-8; ISBN-10: 978-0-13-608620-9.

Topics: Database management concepts, data models (ER/EER, relational data mode, etc), query languages, database design theory, transactions, and trends (big data).

Examinations and Assignments: There are 3 homeworks, and a project. All assignments must have your **name**, **student ID** and course name/ number.

The weighting scheme used for grading is: Midterm exams - 30%, Final exam - 40%, Assignments - 15%, Project - 15%. There are two necessary conditions for passing this class: 1) Submission of **all** assignments and Project, and 2) scoring >= 50% on the final examination. Students are responsible for all material covered in lectures, as well as that specifically mentioned as part of the reading assignments. Examinations will heavily emphasize conceptual understanding of the material.

Late Submission Policy: Assignments must be submitted via eLeaning on the specified due date (Monday of designated week). Late homeworks also should be submitted via eLearning. A penalty of 30% will be deducted from your score for the first 24-hour period your assignment is late. A penalty of 70% will be deducted from your score for >= 24-hour period. No credit for >= 3 days. Weekend days will be counted. Following is (roughly) the weight distribution for laboratory problems: Correctness - 60%, Test Results Summary - 10%, Code readability including comments - 15%, Approach and Report - 15%. Report should discuss assumptions and findings.

Cheating/ Collaboration: Getting help from services like general debugging service (GDS), copying someone else's assignment or the common solution of written or programming assignments will be considered cheating. The purpose of assignments is to provide individual feedback as well to get you thinking. Interaction for the purpose of understanding a problem is not considered cheating and will be encouraged. However, the actual solution to problems *must* be one's own.

Helpful Comments: This class is very interesting and useful. However, a lot of material will be covered and many new concepts will be introduced. To get full benefit out of the class you have to work regularly. Read the textbook regularly and start working on the assignments soon after they are handed out. Plan to spend at least 10 hrs a week on this class doing assignments or reading.

Good Luck, and Welcome to CS 4347!

Weili Wu

SCHEDULE for CS 4347

The schedule indicates the concepts and material to be covered in each week under the column labelled "Lecture Topics". The chapters in the textbook are referred to by the chapter number.

Homeworks will be due on **Mondays**.

Week	Dates	Lecture Topics	Textbook	Due
1	1/17	Overview of DBMS (lec1.pdf)	1, 2	
2	1/22-24	Review of DBMS (slide2.pdf, ER Model (ER_EER.pdf)	1, 2, 7, 8	
3	1/29-31	More ER EER Model (pdf),	7, 8	
4	2/5-7	More ER EER Model (pdf), Oracle tutorial Relational Data Model Lec6 (pdf file), Updated Relational Operations (pdf).	7, 8 3	
5	2/12-14	Review Relational Model, Lec8 (pdf).	3	
6	2/19-21	ER/EER-to-Relational Mapping, lec9 (pdf).	9	HW1;
7	2/26-28	Relational Algebra (pdf). Midterm Review (pdf); Midterm Exam (2/29 - 3/1 at Test Center)	6	Project Phase I
8	3/4-6	No lecture class on 3/4 (Midterm Slot); More Rel. Algebra (pdf).		HW2
9	3/11-17	Spring Break		
10	3/18-20	SQL (pdf)	4, 5	
11	3/25-27	More SQL (pdf)	4, 5	
12	4/1-3	More SQL (Supplementary slides)(pdf) Functional Dependency and Normalization (pdf).	15	Project Phase II
13	4/8-10	Functional Dependency and Normalization (pdf);	15	
14	4/15-17	Functional Dependency and Normalization (pdf);.	15	
15	4/22-24	Final Review (pdf);		HW3; Project III
16	4/29-5/1	Project Demo and Final Exam Slot (study day)2024		
17	5/3-5/6	Final Exam (Test Center)		ProjectIV, Demo