

C S 4420/5420 Database Systems I FALL 2018

Instructor: Rory Lewis PhD JD

Time/Place: Aug 20 – Dec 10. Mon, 04:45 PM - 07:30 PM, ENGR 101;

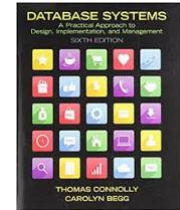
Final exam: Monday Dec 10 5:20 - 7:20 PM slot

Contact: Office ENGR 188. Phone: 255-3149

Email: rlewis5@uccs.edu Office Hours: (i) Wed., 11:00AM-1:00PM, (ii) set up a more convenient time for you, or (iii) just show up as most students do.

Texts: *Database Systems: A Practical Approach to Design, Implementation, and Management, 6/E.* Thomas Connolly, Carolyn Begg. ISBN-10: 0132943263 • ISBN-13: 9780132943260

Prereq.: CS3300 (**strongly** recommended); Programming & Design maturity



Course Description:

Course introduces general database concepts as well as database system technology. This course covers the fundamental concepts necessary for designing, using, and implementing database systems and database applications. The course stresses the fundamentals of database modeling and design, the languages and models provided by the database management systems, and database system implementation techniques. The goal is to provide an in-depth and up-to-date presentation of the most important aspects of database systems and applications, and related technologies.

Student contact:

The course website is located at **NOTE:** <https://www.rorylewis.com/>

Assignments will be handed out in class, and may or may not be posted so attend class to keep up on coursework. Homework assignments will be given, and students are expected to complete them as part of the learning process. Answers to homework assignments will be covered in class. Emails will be checked once in the morning, so waiting until the last minute to ask questions is generally a bad idea. I am purposely reducing my email loads, and emphasizing **face to face contact** rather than electronic contact, so ask questions on assignments in class. It is the student's responsibility to keep up with class by their physical and mental presence during class time.

Grading Policy:

Final course grades will be determined based on the following approximate percentages:

Project:	40%
Midterm:	30%
Final Exam:	30%

No makeup exams or quizzes will be given. If the student is unable to take an exam due to **extreme** circumstances, the student may, at the instructor's discretion, take the exam early. In addition, on-time completion of assignments will be critical to the student's success in the class; therefore, late assignments will be assessed a 25% penalty for 1 class late, 50% for 2 classes late, after which they **will not be accepted**.

Assignments are due at the class **start time** on the given due date.

Attendance:

Students are expected to come to class on time, prepared to participate, and to read the assigned material before class. Cell phone and laptop misuse (other than note taking), or other disruptive behavior will not be permitted. Class notes should be obtained from another student if a class is missed. **Some important material covered in the lectures will not be contained in the text**, and selected material from the text will be augmented and emphasized in the lectures.

Late Drops, Incompletes:

A drop after the normal deadline date is allowed by the college very rarely and will be approved only if there is documented evidence that the student was prevented from attending a significant number of classes by circumstances clearly beyond his/her control (e.g., illness). If the instructor approves the drop, the Computer Science Department Chairman and the EAS Dean have final authority in carrying out the EAS college policy and granting approval. A grade of 'Incomplete' is rare and allowed only when the student has already completed the majority of the course work completed, but has insurmountable problems with completing a small part of it *due to circumstances clearly beyond their control*. An 'Incomplete' is not justified in the case of a student who has simply chosen not to do the work on time.

Logistics:

In the event of a class cancellation on an exam or assignment due date, students should assume that the exam will be taken, or the assignment will be submitted the **following** regular class time.

Responsibilities:

Lost data or failed computers are not valid excuses for late assignments. The lab computers are provided as a resource, and are always an alternative to your own personal computer usage. **Always back up all program materials to a CD to prevent loss. Save data frequently, and under different names so you have multiple copies. Don't risk losing hours of work when (not 'if') a hard drive fails, or the computer crashes. Ask yourself: *How much work am I willing to lose and have to redo, and how much time will I have to do it all again?***

Syllabus Fall 2018
(Subject to updates- Exam dates are NOT exact!)

DATE (Monday)	Week #	TOPICS	HWK
20-Aug	1	Intro, Database Systems	<i>Read, Ch. 1, 2 & 3</i>
27-Aug	2	Relational databases & Calculus	<i>Read, Ch. 4 & 5</i>
3-Sep	3	No Classes (Labor Day)	
10-Sep	4	Relational Calculus cont. & SQL	<i>READ Ch. 5 & 6</i>
17-Sep	5	SQL continued	<i>READ Ch. 7 & 8</i>
24-Sep	6	Object-Rel. DBMS	<i>READ Ch. 9</i>
1-Oct	7	Life Cycle, ER	<i>READ Ch. 10 & 12</i>
8-Oct	8	MIDTERM	
15-Oct	9	EER	<i>READ Ch. 13</i>
22-Oct	10	Normalization	<i>READ Ch. 14 & 15</i>
29-Oct	11	Distributed DBMS	<i>READ Ch. 24</i>
5-Nov	12	Web Technology	<i>READ Ch. 29</i>
12-Nov	13	XML	<i>READ Ch. 30</i>
19-Nov	14	Data Warehouse design	<i>READ Ch. 31/32</i>
26-Nov	15	Data Warehouse design cont. and OLAP (Project Review)	<i>READ Ch. 32 & 34</i>
3-Dec	16	Data Mining (Database Topics Project)	<i>READ Ch. 34</i>
10-Dec	17	FINAL: Monday Dec 10 5:20 - 7:20 PM slot	