

## C S 4420/5420 Database Systems I FALL 2013

**Instructor:** Al Brouillette (*pronounced* brew-YET)  
**Time/Place:** M-W 4:45-6:00, OSBORNE B216; **Final exam: Wed., 12/18 4:45-7:15 slot**  
**Contact:** Office ENGR 244. Phone: 255-3332  
Email: albrov@att.net Office Hours: 1:50-2:50 M,W; 12:30-1:30 T,TH  
**Texts:** *Relational Database Design and Implementation 3<sup>rd</sup> ed.*, Harrington  
ISBN#9780123747303  
*SQL Clearly Explained, 3<sup>rd</sup> ed.*, Harrington  
ISBN#9780123756978  
**Prereq.:** CS330 (**strongly** recommended); Programming & Design maturity

### Course Description:

Course introduces general database concepts as well as database system technology. The course covers ER and R data models, R-algebra, SQL, data storage and indexing, query optimization, database design and security.

### Student contact:

The course website is located at [eas.uccs.edu/abrouill/cs442](http://eas.uccs.edu/abrouill/cs442). **NOTE: Assignments will be handed out in class, and may or may not be posted– attend class to keep up on coursework.** Answers to questions of general interest, and clarifications on assignments will be posted at the website. 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. **Laptop usage in class inappropriate to the course (e.g., email, entertainment, anything except note-taking) will negatively impact grades after 1 warning.**

### Grading Policy:

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

Homework:	15%
SQL Programming Semester Project <sup>1</sup> :	25%
Midterm and Final Exam:	60%

**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.

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<sup>1</sup>Grad students will have additional project requirements specified in the assignment

**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. Roll will be taken occasionally.

**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 2013

(Subject to updates- SQL part is re-organized, may need adjustment!)

DATE (Sunday)	Week #	TOPICS	ASSIGNMENTS
8/25	1	Intro, Database Systems	<i>RDDI, Ch. 1,2</i> ; SQL book begin reading
9/1	2	<b>NO CLASSES AT UCCS 9/2 or 9/3 for Labor Day</b> Analysis and Database Requirements	
9/8	3	Design needs	<i>RDDI, Ch. 3</i>
9/15	4	Entities and Relationships / Begin SQL	<i>RDDI, Ch. 4</i>
9/22	5	Relational Data Model / SQL	<i>RDDI, Ch. 5</i>
9/29	6	SQL- TBD, First 12 Chapters of <i>SQL Clearly Explained</i>	<i>RDDI, Ch. 9</i>
10/6	7	Performance, Codd's Rules	<i>RDDI, Ch. 7, 8</i>
10/13	8	SQL / Normalization	<i>RDDI, Ch. 6</i>
10/20	9	TBD - Midterm.	<i>SQL</i>
10/27	10	Normalization <b>* 11/1 Last day to drop w/o special permission!</b>	
11/3	11	*Guest Speaker; CASE tools, Case Study 1	<i>RDDI, Ch. 10, 11</i>
11/10	12	Case Study 2, 3	<i>RDDI, Ch. 12, 13</i>
11/17	13	Concurrency	<i>RDDI, Ch. 14</i>
11/24	14	Security <b>Thanksgiving- No UCCS Classes Wednesday or Thursday</b>	<i>RDDI, Ch. 15</i>
12/1	15	Current Database Topics	
12/8	16	Current Database Topics	
12/15	17	<b>Finals Week Special Schedule for ALL COURSES</b> Final Wed. December 18, 4:45-7:15 (1.5 hour final)	