School of Computing

CS 6931: Database Seminar

Spring 2012

Instructor: Prof. Feifei Li, *lifeifei@cs.utah.edu*, http://www.cs.utah.edu/∼lifeifei, phone 801-585-6673.

Office Hours: by appointment (the best way to reach me is via email.)

Course Description: This course introduces both the classical and the latest results from the data management and database research. Some of the topics we will cover include I/O efficient data structures and algorithms, indexing for multidimensional data, such as the popular R-tree and kd-Tree, streaming data, graph data, various data management systems and platforms, etc. We will take a balanced approach focusing on both the algorithmic and the system aspects of problems in data management and databases.

An undergraduate computer science background is required for this class. General knowledge on algorithms, statistics, and probability theory is necessary. Student expects to learn an overview of various topics in data management and database research, especially on the issue of scalability, efficiency, and data models. The format of the seminar will be very flexible. The instructor will lead the discussion for 1/3 to 1/2 portion of the semester, and students will share the responsibility of leading the discussions for the rest of the semester, using selected papers (assigned by the instructor with the consideration of individual interest).

Course Objectives: To obtain an overview of data management and database research from both the algorithmic and the system angles.

Prerequisites: An undergraduate computer science background is required for this class. General knowledge on algorithms, statistics and probability theory, and databases is necessary.

Class Home Page: `http://www.cs.utah.edu/∼lifeifei/cs6931/`
All class assignments, schedules, and lecture notes can be found on this page. Please check this website at least once or twice a week for important updates.

Class Mailing List: cs6931@list.eng.utah.edu, `https://sympa.eng.utah.edu/sympa/info/cs6931`. Please sign up.

Time and Place: 9:40-11:00 AM on Wed; MEB 3147.

Recommended Readings: No required textbook. Reading materials will be distributed when necessary.

Collaboration/Academic Honesty All course participants must adhere to the academic honor code of the University of Utah which is available in the student handbook. All instances of academic **dishonesty** will be reported to the university. Evey student must write his/her own homework/code. Showing your code or homework solutions to others is a violation of academic honesty. It is your responsibility to ensure that others cannot access your code or homework solutions. Consulting related textbooks, papers and information available on Internet for your coding assignment and homework is fine. However, copying a large portion of such information will be considered as academic dishonesty. If you borrow a small piece of any such information, please acknowledge that in your assignment.

Students with Disabilities Students with disabilities needing academic accommodation should: (1) register with and provide documentation to the Student Disability Resource Center (2) bring a letter to the instructor indicating the need for accommodation and what type.

Important Dates: Last day to add, elect CR/NC, or audit the class: Monday, January 23. Last day to withdraw from the class: Friday, March 2 (Please verify this with registrar!)

Grading Policy: The course grade will break down as follows.

Class Participation	30%
Leading Discussion	50%
Term Paper	20%

And your final grade will be assigned as follows.

90-100	A	80-84	B+	65-69	B-	55-59	D
85-89	A-	70-79	B	60-64	C	50-54	E
0-49	F						

Note that students taking 2 credit hours will expect to do more than one leading discussion (2 to 3 times depending how many slots are available), whereas a student taking only 1 credit hour will expect to do only one leading discussion.

Course Policy

1. You are allowed to discuss written assignments if any, however, any such discussion must be clearly acknowledge on the submitted solution. Your solution should be stapled together and neatly prepared.
2. The term paper will be done individually. No inter-team collaboration is allowed.
3. You are bound to attend all lectures unless notifying the instructor in advance with reasonable excuses.
4. Usually, a leading discussion assignment is due one to two weeks after it is out.

Late Policy – Make up exams: Late assignments will not ordinarily be accepted. If, for some compelling reason, you cannot hand in an assignment on time, please contact me as far in advance as possible. If a written assignment is due at the beginning of a class, you should hand it in at the *beginning* of the class.