COS 598: Advanced Topics in Database Management

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University of Maine

Spring 2007

News and Reminders:
- Homework 3 appears in the Assignments section.
- Please use the PDF version of this document for printing and reference: `cos598.pdf`

Introduction

Class meetings:
> **Time:** Tuesdays and Thursdays 1100–1215 hrs.
> **Location:** Neville Hall, Room 227.

Professor: Sudarshan S. Chawathe
> **Office:** 224 Neville Hall
> **Office hours:** (Please check for changes.)
>> - Tuesdays and Thursdays 1000–1100 and 1215–1245 hrs.
>
> **Phone:** (207) 581-3930
> **Email:** (the first four letters of my last name)@cs.umaine.edu. Please put the string *COS598* near the beginning of the Subject header of your messages to me.

Textbooks: There are two required textbooks and one optional textbook; all should be available at the campus bookstore. These books will be supplemented by papers.
- (required) *Foundations of Databases.* Serge Abiteboul, Richard Hull, and Victor Vianu. Addison-Wesley. 1995. ISBN 0201537710.
- (required) *Principles of Transaction Processing.* Philip A. Bernstein and Eric Newcomer. Morgan Kaufmann. 1997. ISBN 1558604154.
- (optional) *Transaction Processing: Concepts and Techniques.* Jim Gray and Andreas Reuter. Morgan Kaufmann. 1993. ISBN 1558601902.

Class Web site:
> http://www.cs.umaine.edu/~chaw/cos598/
> We will use the class Web site for posting announcements, homeworks, hints, solutions, etc. Please monitor it.

Class mailing list: Please make sure you are on the class mailing list. A sign-up sheet will be circulated at the first class meeting. If you miss it, you need to contact me to get on the list.

Subject matter: This course is a "topics" course and the subject matter will vary by semester. As suggested by the choice of textbooks, this semester will focus on topics from two areas: database theory and transaction processing.

Special needs: If you have special needs of any kind (including, but not limited to disabilities, absences due to participation in sports or other activities, etc.) please contact me *as soon as the need is known to you.*

Attendance: Although I expect students to attend all class meetings, I will not be taking attendance. If you miss a class meeting, you are responsible for making up the lost material. If you have a valid reason for missing a class, let me know early and I will try to help you make up the class. (See above.)

Schedule: At the beginning and end of each class, I will announce sections of the textbook covered in each class and those due at the next class. An approximate schedule may be found here later.

Make-up classes: I may have to reschedule a few classes due to my other professional commitments. I will make every attempt to minimize the number of such occurrences and to reschedule for a time that works for most students. Further, I will make sure no student is penalized by such occurrences.

Grades: Grades will be based on class participation (10%), homeworks (20%), a mid-term exam (15%), a final exam (20%), and a project (35%).

Class participation: Students are expected to contribute to learning by asking questions and making relevant comments in class. Quality is more important than quantity. Disruptive activity

contributes negatively. Please make sure all disruptive devices are disabled while in class.

Homeworks: Homeworks include programming and non-programming ones. No collaboration is permitted. You are allowed to discuss the problems at a high level, but the final solution must be your individual work.

Exams: All exams are take-home (and thus open book, open notes). You are free to use any resources that you find useful as long as they are properly acknowledged and your submission is your own work. (No collaboration is permitted on exams.)

Project: The class project is a very important part of this course. Each student is responsible for working with the instructor to select a suitable project topic and to schedule an end-of-semester demonstration. Each student is also responsible keeping the project work on schedule to yield, at the end of the semester, a high-quality written report, a submission of well-documented source code, and a demonstration.

Class accounts: Class accounts will be generated based on the forms distributed at the first class meeting. If you miss them, please get in touch with me.

Due dates: All due dates are strict, as announced in class. If you believe your work was delayed by truly exceptional circumstances, let me know *as soon as those circumstances are known to you* and I will try to make a fair allowance. However, the default is that you get a zero if you don't turn in the work on time.

Academic honesty: I expect you to hold yourselves to the highest standards of academic honesty. Please take this point very seriously. If you are not sure if something is permitted, check with me. All help you receive, even if permitted, must be prominently noted in all work you submit. Plagiarism and other forms of cheating will result in very stiff penalties (including, but not limited to, an F grade in the course and further disciplinary action from the university).

Readings

[Additional material will appear here later.]

1. François Bancilhon and Raghu Ramakrishnan. An amateur's introduction to recursive query processing strategies. In *Proceedings of the ACM SIGMOD International Conference on Management of Data (SIGMOD)*, pages 16–52, Washington, D.C., May 1986.

Assignments

[Homeworks and tests will appear here.]

- Homework 1: `hwq/hw01.pdf`.
- Homework 2: `hwq/hw02.pdf`.
- Midterm Exam: `hwq/mt.pdf`.
- Homework 3: `hwq/hw03.pdf`.