

Advanced Database Systems (CS 6093)

Course Prerequisites: CS 6083 or CS 308 or an equivalent first course on database systems. You should be familiar with the relational model, SQL, relational algebra, basic database system architecture, index structures, join algorithms and query processing mechanisms, and basics of transaction processing and concurrency control.

Time and Location: TH 6:00–8:25 pm, room JAB 773.

Instructor: Prof. Torsten Suel, suel@poly.edu, phone 260–3354.

Office Hours: Tuesdays 4:45 to 5:45pm in LC245, or by email appointment.

Course Webpage: <http://cis.poly.edu/suel/cs6093/> (announcements will also be sent via the mailing list on mypoly, so make sure to receive those emails)

Required Text: There is no required textbook, and we will mostly rely on research papers that are made available in class or on the course web site. For background, it might be advantageous to have access to a standard database textbook such as Silberschatz/Korth/Sudarshan: *Database System Concepts* or the books by El-Masri/Navathe, Ramakrishnan/Gehrke, or O'Neil/O'Neil.

Grading Policy: Small Projects and Assignments: 30%. Course Project: 30%. Final exam: 30%. Course participation (including presentation): 10%.

General Information: This course covers a variety of topics in advanced databases; the exact topics may vary between semesters. In this semester, we plan to focus on topics in database query processing, data warehousing, relational and text data mining, databases and information retrieval, and stream databases and other emerging architectures and applications.

Programming Assignments: There will be a series of smaller assignments and projects on a few topics. In addition, every student has to do a larger course project, and may have to give a formal presentation on a paper or topic in class. Projects may be done individually or in small groups, as specified later.