Syllabus
IDS 521, Advanced Database Management, Spring 2007
Sec 16760, Tuesday 6:00PM-8:30 PM, TH 216 and lab

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Office Hours: Tuesday 12:45PM-2:45PM and by Appointment
Class Web site: http://blackboard.uic.edu
TA: TBA

Course Description (IDS 521): Relational and Object relational database systems; client/server and enterprise database architectures; data analysis for database design; logical and physical data modeling; SQL (interactive and HTML-JSP-Servlet web application embedded); index structure and implementation; XML; transaction processing; physical database design; database tuning and performance evaluation; distributed databases. Computer resources available for class use include Oracle, IBM DB2, and Open Source database servers and a web server.

Prerequisites: IDS and University requirements. Please note that in addition to the basic database course a strong programming background is required, equivalent to IDS 401 and 517 for the project. This class is typically composed of two groups of students, those with extensive background and those with very limited background. We will adjust the pace of the course as class composition becomes clear.

Textbook(s): *database DESIGN, APPLICATION DEVELOPMENT, & ADMINISTRATION*, by Michael V. Mannino, McGraw-Hill Irwin. Additional references and reading assignments will be provided.

Grading Policy:

Weight	**Element**
35%	Assignments and project, including presentation and oral exam on assignments and project
30%	Exam number 1
35%	Exam number 2
100%	**Total**

A: >= 90%	B: 80% to < 90%	C: 70% to < 80%	D: 60% to < 70%	F: < 60%

General policy: All assignments, due dates, and exam dates will be posted on our web site if they differ from those shown in this syllabus. You are responsible for checking the web site on a regular basis. Assignments must be turned in electronically using Blackboard. The assignments are due prior to the start of the class. Late assignments will lose 50% per class period late, until solutions are posted at which point they receive no credit. The assignments and project will require extensive effort, so please adjust for this. Attendance: You are responsible for assigned reading and material covered in class.

Extra Help: Extra help is always available. Please ask, and ask on time.

Honor Code: The last two pages detail CBA policy on this topic.

Approximate (Target) Schedule (IDS 521)

Note: We may revise the schedule and topics covered to accommodate class interests and backgrounds.

Period	**Dates**	**Reading assignments (Chapter and section)**	**Topics**
Week 1	Tuesday January 16	Chapters 1-3, 17.1-17.2.	Introduction; Relational Algebra; SQL; Software development; tools.
Week 2	Tuesday January 23	Chapters 4, 10.1-10.2.	SQL; Views; Dynamic (database) Web Applications.
Week 3	Tuesday January 30	Chapters 5-6.	E/R.
Week 4	Tuesday February 6	Chapter 7.	Normalization.
Week 5	Tuesday February 13	Chapter 8.	Physical Database Design.
Week 6	Tuesday February 20	Chapter 9.	Advanced SQL.
Week 7	Tuesday February 27	Chapters 10.3-10.5, 11.	Views; Stored Procedures and Triggers.
Week 8	Tuesday March 6	Chapters 12-13.	Views.
Week 9	Tuesday March 13		Review.
Week 10	Tuesday March 20	Chapters 1-13.	Exam number 1.
	Tuesday March 27	Spring Break	
Week 11	Tuesday April 3	Chapters 14-15.	DB Administration; Transaction Management; XML.
Week 12	Tuesday April 10	Chapter 16, 17.3-17.6.	Data Warehouse; Parallel and Distributed Processing.
Week 13	Tuesday April 17	Chapter 18.	Object Database management.
Week 14	Tuesday April 24		Review; Project presentations
Week 15	Tuesday May 1	Comprehensive: Chapters 1-18.	Exam number 2.
Week 16	Tuesday May 8	Final exam week	