

MSI 520: Database Application Development & Design
University at Albany, SUNY
Fall 2001

Instructor Information

Name: Sanjay Goel
Email: goel@albany.edu
Phone: (518) 442-4925
Office Hours: M 1:00 - 2:30 or by appointment

Class Information

Time (4483): 10:10 - 11:05
Time (4482): 11:15 - 12:05
Room: BA 227
Dates: October 14 - December 5
Available Labs: MIS Lab, HRIS Lab

Course Overview

This is an introductory course in databases which teaches the basic principles of relational database theory and use of query languages. The students learn to write queries in SQL and design a database using Microsoft Access. The course discusses the basic database design principles as well as the rationale for using different forms of normalization.

Text Books & Software

Text: Mannino, Database: Application Development & Design (with Access 2002 CD)
Reference: Steven Roman, Access Database: Design & Programming, 2nd Edition

Resources

Normalization Notes
[Normalization.ppt](#)
SQL Notes
[sql-dml.ppt](#)
DBMS Notes
[dbms.ppt](#)
XML Notes (prelim.)
[xml.ppt](#)
Library Database
[Library](#)
Order Entry Database
[OrderEntry](#)
University Database
[University](#)

Grading

Homework: 25%
Project: 25%
Final Exam: 50%

Database Project

Each person has to complete a database project using Microsoft Access as a part of the class. At most two students are allowed to work on the same project. The project is due on November 25. All students will work on the same project which is described in the [description document](#).

Course Schedule

Lec. #	Date	Topics	Readings	Room
1	10/14	Introduction to Databases	Chapter 1	BA 227
2	10/16	Relational Database Design	Chapter 2	
3	10/21	Data Modeling: ER Diagrams	Chapter 7	
4	10/23	Database Normalization	Chapter 8	
5	10/28			
6	10/30	SQL - Data Definition Language	Chapter 3	
7	11/4	Introduction to Access - Create Database	Notes	BA 232/234
8	11/6	SQL - Data Manipulation Language	Chapter 3	BA 227
9	11/11	MS Access - QBE	Notes	BA 232/234
10	11/13	SQL - Advanced Queries	Chapter 4	BA 227
11	11/18	MS Access- Forms and Reports	Notes	BA 232/234
12	11/20	Database Administration	Chapter 12	BA 227
13	11/25	Data Warehousing - Denormalization	Chapter 14	
14	12/2	Semi-Structured Data (XML)	Notes	
15	12/4	Exam		