

Database Systems CS 488

Course Objectives

- To develop an understanding of database concepts and structures.
- To understand the underlying logical and physical design of databases.
- To be able to solve database problems and implement their solutions using Structured Query Language (SQL).
- To understand the three basic database models and their advantages and disadvantages.
- To be able to implement a web-enabled database system using JSP and JDBC.

Course Description

Concepts and terminologies associated with database structure, file organization, access methods, packaged systems, database design and database systems. *Prerequisite: CS232 and senior status.*

Software Used to Support the Course

MS-SQL Server, SQL, Tomcat, JSP, DB2 or Oracle(if available)

Course Materials

Database Systems 3rd Edition, by Connolly, Begg, and Strachan. ISBN 0-201-70857-4. Addison-Wesley Publishing, 2001.(Required)

3.5" HD Floppy disk (Required)

Lecture notes, project descriptions, homework problems, and frequently asked questions (FAQ) about the course materials are freely accessible through the web at the URL address:

<http://cs.jsu.edu/mcis/faculty/gfrancia/cs488>

or at the network file server:

F:\user\gfrancia\cs488

A collaborative learning website is available at the URL address:

<http://mcis2.jsu.edu:8080>

Course Outline

Weeks 1-5: Introduction to database systems. Database environment. Relational model. Relational Algebra. **Test 1.**

Weeks 6-10: Entity-relationship Modeling. Structured Query Language (SQL). logical Database Design. JDBC and Java Server Pages. **Test 2.**

Weeks 11-14: Physical Database Design. Normalization. Conceptual Database Design. Research Paper presentation. **Final Exam.**

Grading Policy

Test 1	20.0%
Test 2	20.0%
Research Paper/Presentation	10.0%
Homeworks	15.0%
JSP/JDBC Project	10.0%
Final Exam	25.0%

Letter Grade	Points Earned (%)
A	90 - above
B	80 - 89
C	70 - 79
D	60 - 69
F	below 60

Course Policy

To take a make-up exam, a student must have a legitimate reason for having missed the exam. No student, regardless of the reason, may take more than two make-up exams. It is the responsibility of the student to request a make-up exam. No make-up will be given on any missed pop test. Be prepared to take the makeup exam as soon as you return to class.

All homework assignments are to be turned in at the beginning of class on the due date. Late homework will be charged 10% deduction per day. The weekend counts 1 day late penalty. No homework will be accepted more than a week late or when the solution has been handed out in class. No project will be accepted after the last day of class.

LEGITIMATE REASONS:

1. sickness or emergency
2. participation in a scheduled University event of which the instructor have been given prior notice
3. other reasons with instructor approval prior to the exam.

Students must adhere to the University Policy on Academic Honesty as specified in the JSU Student Handbook.

You are not limited to a fixed number of cuts in this class. However, roll will be taken and attendance and participation in each class is

expected. A 100% attendance is strongly recommended.

Any student receiving a failing grade on any assignment or exam is urged to talk to the instructor.

Make every effort to use proper English on exams and assignments.

Any individual who qualifies for reasonable accommodations under the Americans With Disabilities Act or Section 504 of the Rehabilitation Act of 1973 should contact the Instructor immediately.

All students are expected to attend class fully prepared with appropriate materials and all devices which make noise turned to the off position (e.g., cellular phones, pagers, personal stereos, etc.). Any student behavior deemed disruptive by the professor will result in expulsion of the student from the classroom, with an absence for the day and possible disciplinary action.

Final Examination Schedule

Dec 09, 2003 Tue 1030-1230

Instructor

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Office Hours: 1100-1400 MW,
1000-1200 TTh or by appointment