Computer Engineering Department
College of Engineering

San José State University

Database Design

CmpE 226 Syllabus Spring 2003

COURSE NUMBERS: CmpE 226

TIME: Tuesday, 6:00 to 8:30

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URL: http://www.engr.sjsu.edu/~fayad

Course URL: http://www.engr.sjsu.edu/~fayad /current.courses/cmpe226/cmpe226.php

OFFICE HOURS:

Monday -- Wednesday 11:30 a.m. to 1:30 p.m.
Other times: Send an e-mail to schedule an appointment.

REQUIRED TEXTBOOKS:

P. Revesz, Introduction to Constraint Databases , Springer, New York, 2002.

SUPPORTING BOOKS & ARTICLES:

(More articles will be posted on the web later.)

CATALOG DESCRIPTION *(No more than 40 words)***:**

For over 30 years, computerized database systems have been developed and used to help computers manage the increasing amount of data that we store and manipulate. This course presents an overview modern database systems and some advanced issues.

COURSE PREREQUISITES:
CmpE126/CS046B (?), (Data Structures & Algorithms), or instructor's permission -- Good background in the practical use of an object-oriented programming language is a plus.

BACKGROUND: This course is targeted to those individuals who are interested in database design and would like to learn several database design and systems.

Course Outline

Week	Reading	Topic
Week 1	Ch. 1	Infinite Relational Databases
Week 2	Ch. 2	Constraint Databases
Week 3	Ch. 3	Relational Algebra and SQL
Week 4	Ch. 4	Datalog Queries
Week 5	Ch. 5	Aggregation and Negation Queries, Review
Week 6	Special Topic	Test 1
Week 7	Handout	The MySQL System
Week 8	Ch. 18	The MLPQ System
Week 9	Notes	**Normalization, OODB, XML, Distributed DB**
Week 10	Ch 13	**Spatiotemporal Databases**
Week 11	Handout	The ARC/GIS System
Week 12	Ch. 20	The PReSTO System
Week 13	Ch. 23	**Environmental Modeling and Review**
Week 14	Special Topic	Test 2
Week 15		The future of Database Systems

Grading Policy

Your grade in this course will be based on your performance on written homework, test, and a programming project.

	Exercises	Points	Due
Homework 1	Ch. 1.1, 1.2	10	Feb. 18
Homework 2	Ch. 2.2, 2.4, 2.6, 2.7	10	Feb. 25
Homework 3	Ch. 3.2, 3.3	10	March 4
Homework 4	Ch. 4.1, 4.2, 4.3	10	March 11
Test 1	Midterm	50	March 18
Project 1	**Web Site -- Design**	**20**	**April 22**
Extra Assignment	**General**	**10**	**April 22**
Homework 5	**Ch. 13.3, 13.4, 13.5, 13.6, 13.12**	**10**	**April 29**
Project 2	**Web Site -- Implementation**	**20**	**May 6**
Test 2	Final	60	May 13
An Essay (Optional)	(Optional)	10	May 13
Total		220	

Essay is a whole 5 points out of your grade.
Your lowest homework grade will be dropped hence the maximum will be 210 points that you can earn without extra credits. Your final grade will be based on the percentage of your total points (200 points counts as 100%). **Your grade will be based on an overall curve.**

Class Attendance: Class attendance is mandatory. If you have more than four unexcused absences, then you will be dropped from the class. However, if you attend all lectures, then you will get extra points.

Cheating: All homework assignments and extra assignments need to be done individually. The programming projects can be done either individually or with one or two other partners. Cheating will be reported to the department chair and may result in a failing grade in the course.

The Academic Dishonesty Policy:
http://www.sjsu.edu/student_affairs/academicdishonestyrevisedpolicy.pdf)

Students with Disabilities:
"If you need course adaptations or accommodations because of a disability, or if you have emergency medical information to share with me, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours."

Due Dates: Late homework assignments, extra assignments, and projects are NOT ACCEPTABLE. **There will be no make up tests.**

Hand In: All homework assignments, extra assignments, and projects need to be typed and handed in as hardcopies and electronically. You also need to demonstrate Project 2 to the instructor. Hand-written assignments and projects are not acceptable. Check submission guidelines.

Class Webpage: http://www.engr.sjsu.edu/~fayad /current.courses/cmpe226/cmpe226.php contains the syllabus, some of the homework and lecture notes, and occasional notices.