Florida International University
School of Computer Science
COP 5990 -- Principles of Database Management Systems
Fall, 2004

Instructor:
Professor: Dr. Shu-Ching Chen
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Room and Time: ECS 235, Monday 18:25 p.m. -- 21:05 p.m.

Office Hours:
Monday 12:15 p.m.-13:15 p.m.
Other times by prior appointment (please call or send e-mail)

Objective: This is a graduate level course that introduces the principles of database management systems to the students. After the students successfully finish this course, they should have a better understanding on different aspects of a database management system. They should also be familiar with relational model, SQL, storage and indexing, query evaluation, transaction management, and some selected topics.

Prerequisite: COP 4540 – Database Management

Topics:

- Overview of Database Systems
- Brief review of Relational Model, Relational Algebra and Relational Calculus
- SQL: Queries, Constraints, Triggers
- Database Application Development
- Database-Backed Internet Applications
- Storage and Indexing – File Organization, Hash-Based Indexing and Tree-Based Indexing
- Query Evaluation
- Transaction Management
- Overview of some of the following topics
  - Distributed Databases
  - Data Warehousing and Decision Support
  - Object-Database Systems
  - Spatial Databases
  - Information Retrieval and XML Data Management

Textbook:
**Grading Policy:**
- Midterm Examination 30%
- Final Examination 30%
- Assignments: 40%

**Notes:**
- University drop date: November 5, 2004.
- No late homeworks will be accepted, and no make-up for the mid-term and final exam will be given.
- Each student should complete his/her assignments independently.
- Students should attend all the classes.
- Academic misconduct will not be tolerated by the University, nor will it be tolerated in the classroom.
- On November 28, 2001, Student Government Council voted to endorse a Code of Academic Integrity:

“Florida International University is a community dedicated to generating and imparting knowledge through excellent teaching and research, the rigorous and respectful exchange of ideas and community service. All students should respect the right of others to have an equitable opportunity to learn and honestly to demonstrate the quality of their learning. Therefore, all students are expected to adhere to a standard of academic conduct, which demonstrates respect for themselves, their fellow students, and the educational mission of the University.”