COP 4710 – Database Systems – Fall 2008 Syllabus

Course Prerequisites: COP 3503

Class Meets: Tuesday & Thursday from 4:30 – 5:45 pm in HEC 118

Instructor: Dr. Mark Llewellyn

Office: HEC 236
Office Hours: Tuesday & Thursday 12:00 – 1:15 pm and 3:00-4:15 pm
  Wednesday: 1:00 – 2:00pm

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Course Web Site: www.cs.ucf.edu/courses/cop4710/fall2008

Course Objectives:
  The general objective is to provide students with a broad background in database design, database languages, and database system implementation. The emphasis on the fundamental concepts of database management will provide you with the ability to accommodate a variety of database technology. The topics covered will also provide a firm foundation for further studying, designing, implementing, and effectively using database systems.

Text: The following text is required:
  Database Management Systems, 3e, Ramakrishnan & Gehrke, McGraw-Hill, 2003, ISBN: 0-07-246563-8.
  The text will be supplemented with notes that I will provide for you via the course web site.

Term Project:
  Details of the term project will be provided later. Basically, this will entail you designing, creating, populating, and manipulating a relational database.

Late Assignments: No late assignments will be accepted by default.

Academic Dishonesty
Cheating on examinations or other serious forms of academic dishonesty will result in a grade of "F" (and a required report to University officials). Persons "borrowing" someone else's work on an assignment will receive a zero on that assignment if it is the first offense. A second offense will be considered a serious form of academic dishonesty. (Borrowing is equally subject to penalties.) You are not expected to work in isolation on assignments. Significant learning frequently takes place in the interchange of ideas with one another. In the final analysis, however, your response to an assignment must be your own, not someone else's.

Grading:

Three exams will be given, two regular exams and a final exam. Exams are given once – be there as there are no dropped test scores.

Term project 20%
Regular Exams ....(20% each) 40%
Final Exam (Thursday December 11th – 4:00-6:50 pm)................................ 20%
Homework Assignments (4-5 total).. 20%

Grading Scale:
90-100 = A, 80-89 = B, 70-79 = C, 60-69 = D, <60 = F
Plus/minus grading will not be used in this course.

Some Important Dates:

No Class: Tuesday November 11th – Veteran's Day
            Thursday November 27th – Thanksgiving Break
Last Day to Withdraw: Friday October 17th
Final Exam: Thursday December 11th – 4:00-6:50 pm

Topics To Be Covered:

- General Introduction and basic concepts

- Conceptual Design, Entity-Relationship (ER) and extended ER Modeling

- Relational Model

- ER to relational mapping

- Relational Query Languages

- Structured Query Language (SQL)

- Relational Database Design

- Storage & File Structures

- Indexing & Hashing

- Query Processing and Optimization

- Stored Procedures and Triggers

- Security and Integrity

- Distributed Database Systems

- Data Mining and Data Warehousing

- Advanced Database Systems (time permitting)