Location: FPAT 255
Time: MWF 9:00 AM - 9:50 AM
URL: http://protocols.netlab.uky.edu/~liuj/teaching/CS405G_f13

Instructor

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Office hours: Wed 10:00 AM - 12:00 PM (or by appointment)
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Textbooks

(Required) Fundamentals of Database Systems
by Ramez Elmasri and Shamkant B. Navathe
Addison Wesley, 2010
ISBN-10: 0321369572

(Supplementary) Database Systems: The Complete Book (DS:CB)
by Hector Garcia-Molina, Jeff Ullman, and Jennifer Widom
Prentice-Hall, 2002
ISBN-10: 0130319953
(Link: http://infolab.stanford.edu/~ullman/dscb.html)

Description

Study of fundamental concepts behind the design, implementation and application of database systems. Brief review of entity-relationship and in-depth coverage of the relational model including relational algebra and calculi, relational database theory, concepts in schema design and commercial database languages.

Prerequisite

CS 315 and graduate or engineering standing

Needed Skills: Ability to design, code and debug nontrivial programs in C(C++), Java or Python. Some knowledge of web programming and computer hardware organization.

Learing Outcomes

At the conclusion of the course, the successful student will be able to:

1. understand and appreciate the theoretical foundation of database systems
2. write SQL queries of moderate complexity
3. use sound design principles when defining a database
4. understand through hands-on experience the file management techniques used by database systems.

Grading

The grade will be determined by homework assignments, quizzes, a project, a midterm exam and a final exam. The tentative weights are as follows:

6 Homework assignments	25%
Project	20%
Midterm exam	25%
Final exam	25%
Quizzes	5%

Final grades will be assigned according to the following scale:

A=90-100%, B=80-89%, C=70-79%, D=60-69%, E=0-59%.

For graduate students, grade D will automatically be replaced by E. Also, any grade normalization will be done against peer students, i.e. undergraduates will only be normalized with undergraduates, and graduates with graduates.

No incomplete grades will be assigned unless there exist exceptional, extenuating circumstances.

Late programs or homework will be penalized 10% per day for each day late. No programs or homework will be accepted if they are late for more than 3 days.

Academic Conduct Expectations

Students are expected to complete all assignments independently. Honest and ethical behaviors are always expected. There will be no tolerance for plagiarism or other academic misconduct. The minimum punishment is an E grade that cannot be removed by the repeat option. You may read U.K. Student Rights and Responsibilities at `http://www.uky.edu/StudentAffairs/Code` for a detailed description.