

Syllabus

Aug. 24, 2016

Location: FPAT 255
Time: MWF 9AM - 9:50AM
URL: <http://www.cs.uky.edu/~liuj/>

Instructor

Jinze Liu
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Office hours: Friday 10:00 AM - 11:00 AM (or by appointment)
Location : 235 James F. Hardyman Building

Textbooks

(Required) Fundamentals of Database Systems (6th edition)
by Ramez Elmasri and Shamkant B. Navathe

(Supplementary) Database Systems: The Complete Book (DS:CB)
by Hector Garcia-Molina, Jeff Ullman, and Jennifer Widom
(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 computer hardware organization.

Learning 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. experience the design and development of a web-based database with moderate complexity.

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%