

COP-5725 Principles of Database Management Systems

Catalog Description

Overview of Database Systems, Relational Model, Relational Algebra and Relational Calculus; SQL; Database Applications; Storage and Indexing; Query Evaluation; Transaction Management; Selected database topics will also be discussed. (3 credits)

Prerequisites

COP4540

Type

Required for MSCS

Course Objectives

This is a graduate level course that introduces the principles of database management systems. 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.

Topics

- Database Design
- Relational Model
- Relational Algebra and Calculus
- Schema Refinement and Normal Forms
- SQL
- Indexing and Storage
- Query Evaluation and Optimization
- Transaction Management
- Concurrency Control
- Crash Recovery

Textbook

Raghu Ramakrishnan and Johannes Gehrke. Database Management Systems. Third Edition, McGraw Hill, 2003. ISBN: 0-07-246563-8.

Last Update

Tao Li 10/30/2012