



## Database Structures and Data Retrieval (BCIS 550)



### *Who should take this course?*

This course is for graduate students whose major is not in the Information Systems field but who currently use or expect to use databases in some of their courses, work, or research.

### 2006 Summer Session II

*Monday-Thursday, 12:40 - 2:40, Guthrie 303 (Computer classroom)*

**Register early.**

**Course Description:** This course presents relational database concepts that enable a student to effectively use databases to extract data for analysis and reporting. An understanding of relational database concepts is key to an understanding of how databases are built and how to get the data you need from them. This course will cover how to build a database, how to use it to store data and how to retrieve data, as needed. This course will provide in-depth coverage of **SQL** (structured query language), which is the tool for data input, retrieval, and maintenance.

**Prerequisite:** BCIS 110 or CS 110 or BCIS 338 or equivalent knowledge with consent of instructor.

**Course Objectives:** The student who successfully completes this course will:

- Understand what a relational database is and why concepts such as data modeling, normalization and referential integrity are important.
- Know how to construct a database in Microsoft Access and Oracle.
- Know how to use SQL, including: the WHERE clause (used to limit the data selected from the tables), logical operators, ORDER BY clause, HAVING clause and SORT BY clause.
- Have extensive hands-on practice with two database management software programs: Microsoft Access and Oracle. (Most of what is learned using these will also apply to other database software, such as MySQL and SQL Server.)



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