

**ITAM**

Information Technology &  
Administrative Management

Central Washington University

**IT 469**

**Enterprise Database Systems - SQL  
Course Syllabus - 4 credits**



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**Office Hours:** Varies by quarter. Call or e-mail instructor

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**Course Description:** The goal of this course is to provide a comprehensive introduction to the SQL language. This course not only covers the syntax of SQL, but also shows how it can be used to create and maintain a database and retrieve information from it. It also provides an introduction to relational databases. In addition to explaining concepts, the course uses a variety of assignments to reinforce the material in each chapter.

**Course Objective:** All information technology professionals must be knowledgeable in computer technologies. The outcomes of this course are consistent with the mission of Central Washington University, “by teaching we learn;” the mission of the College of Education and Professional Studies, “to prepare enlightened leaders for the professions and for society;” and the mission of the Information Technology and Administrative Management Department, “to produce competent, confident, and independent lifelong learners for a diverse world through a caring, creative, supportive, and technologically rich learning environment.”

**Course Topics:**

Introduction to SQL  
Single-Table Queries  
Multiple-Table Queries  
Updating Data  
Database Administration  
Reports  
Embedded SQL

**Specific Learner Outcomes:**

This course will address the following goals and concepts:

**Specific Learner Outcomes:**

- You will learn how to manipulate a database on paper prior to working in SQL.
- You will learn about concepts and terminology associated with relational databases.
- You will learn how to use SQL to query a database, discussing the use of simple and compound conditions; computed columns; the SQL operators BETWEEN, LIKE, and IN; SQL functions; nesting queries; grouping data; and retrieving columns with null values.

- You will learn how to use queries to join multiple tables, discussing the SQL operators IN and EXIST, SQL set operations, and the use of the ALL and ANY operators.
- You will learn how to use specific SQL commands, including COMMIT, ROLLBACK, UPDATE, INSERT, and DELETE commands to update table data.
- You will learn about database administration features of SQL, including the use of view; granting and revoking database privileges to users; creating, dropping, and using an index; using and obtaining information from the system catalog; and using integrity constraints to control data entry.
- You will discuss SQL single row functions, and learn to create basic and complex reports based on data in a table or view. You will learn how to concatenate data, create a view for a report, change report column headings and formats, and add report titles.
- You will discuss the use of embedded SQL commands to insert new rows and change and delete existing rows.

**Textbook and other required materials:** Pratt, *A Guide to SQL, Seventh Edition*, Course Technology, Inc. 2005, ISBN 0-619-21674-3. Additionally, instructor reserves the right to hold one or more classes on Blackboard during the quarter. Therefore, broadband Internet access and knowledge of the use of Blackboard is required. Or most recent edition – contact the instructor.

**Instructional Methods and Activities:** This course employs instructor lecture, various assignments, laboratory assignments, instructor feedback, and the use of Blackboard online course application.