CS 81.61 Course Outline as of Fall 2015

CATALOG INFORMATION

Dept and Nbr: CS 81.61 Title: SQL Full Title: Structured Query Language Last Reviewed: 9/27/2010

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	1.50	Lecture Scheduled	1.50	17.5	Lecture Scheduled	26.25
Minimum	1.50	Lab Scheduled	0	4	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	1.50		Contact Total	26.25
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 52.50

Total Student Learning Hours: 78.75

Title 5 Category:	AA Degree Applicable
Grading:	Grade or P/NP
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	CIS 69.53

Catalog Description:

This course is designed for the student who has experience with a database management program such as Access or FileMaker Pro and wants to learn Structured Query Language (SQL), the common language of client server database management.

Prerequisites/Corequisites: Course Completion of CS 63.11 (or CIS 69.31)

Recommended Preparation: Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:

Schedule of Classes Information:

Description: This course is designed for the student who has experience with a database management program such as Access or FileMaker Pro and wants to learn Structured Query Language (SQL), the common language of client server database management. (Grade or P/NP) Prerequisites/Corequisites: Course Completion of CS 63.11 (or CIS 69.31) Recommended: Eligibility for ENGL 100 or ESL 100 Limits on Enrollment:

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree: CSU GE:	Area Transfer Area		Effective: Effective:	Inactive: Inactive:
IGETC:	Transfer Area		Effective:	Inactive:
CSU Transfer	: E	Effective:	Inactive:	
UC Transfer:	E	Effective:	Inactive:	

CID:

Certificate/Major Applicable:

Certificate Applicable Course

COURSE CONTENT

Outcomes and Objectives:

Upon completion of the course, students will be able to:

- 1. Apply the basic vocabulary and functions of SQL to a variety of database tasks.
- 2. Given a Query By Example (QBE) screen, write the corresponding SQL statement.
- 3. Select records from an existing database using SQL based on specified selection criteria.
- 4. Compare and contrast the join types, INNER, OUTER, LEFT and RIGHT
- 5. Use an SQL statement to append records from another source.
- 6. Use an SQL statement to update the field contents in a database based on an expression in an SQL statement.
- 7. Access SQL data via Microsoft Technologies Open Data Base Connectivity (ODBC).
- 8. Solve problems using SQL to demonstrate understanding of the theory and uses of SQL.

Topics and Scope:

- 1. Review of query by example
 - a. Selecting fields
 - b. Selecting records
 - 1) relational operators
 - a) equal
 - b) not equal
 - c) less than
 - d) greater than
 - e) less than or equal to
 - f) greater than or equal to
 - 2) logical operators
 - a) and
 - b) or
 - c) not
- 2. Categories of SQL keywords
 - a. Commands

- b. Clauses
- c. Qualifiers
- d. Operators
- e. Group aggregate functions
- 3. SQL statements to create queries
 - a. SELECT (ALL, DISTINCT, and DISTINCTROW) FROM
 - b. WHERE
 - c. LIKE (proper use of wild cards)
 - d. ORDER BY (DESC)
 - e. GROUP BY
 - f. AND
 - g. BETWEEN
 - h. SUM
- 4. Join types
 - a. INNER
 - b. LEFT
 - c. RIGHT
 - d. OUTER
- 5. SQL statements to create joins between tables
 - a. (INNER, LEFT, and RIGHT) JOIN ON
 - b. Combining result set of two or more SELECT queries into a single result
 - c. Action queries
 - 1) INSERT INTO append from other source
 - 2) DELETE FROM delete from table
 - 3) SELECT INTO create a new table from existing table
 - 4) UPDATE SET WHERE

Assignment:

- 1. Reading approximately 25 pages per week from text book
- 2. Weekly assignments practicing SQL concepts
- 3. 2 to 4 exams

Methods of Evaluation/Basis of Grade:

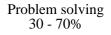
Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments are more appropriate for this course.

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Weekly assignments

Writing 0 - 0%



Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

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None	Skill Demonstrations 0 - 0%
Exams: All forms of formal testing, other than skill performance exams.	
Multiple choice, true/false, matching items, completion	Exams 30 - 70%
Other: Includes any assessment tools that do not logically fit into the above categories.	
Attendance and participation	Other Category 0 - 10%

Representative Textbooks and Materials: The Practical SQL Handbook, by Judith S. Bowman et al. 4th edition, Addison Wesley 2001 (classic in field).