

Ridgewater College

CST 1602: Advanced Databases (Oracle)

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: *.*

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course is designed to introduce students to SQL and PL/SQL functions of the Oracle database management system. Students will learn how to create and maintain database objects, and how to store, retrieve, and manipulate data. Students will also create PL/SQL blocks of application code that can be shared by multiple forms, reports, and data management applications.

B. COURSE EFFECTIVE DATES: 08/21/2006 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

D. LEARNING OUTCOMES (General)

1. Explain the purpose of normalization, keys, dependency, and the purpose of a structured query language (SQL).
2. Identify keywords, mandatory clauses, and optional clauses in a SELECT statement.
3. Select and view all, one, and multiple columns of a table.
4. Use arithmetic operations, remove duplicates and combine data to format output.
5. Use conditional operators, multiple search conditions, and order results to select query results.
6. Create equality, non-equality, self, inner and outer joins.
7. Use single-row and multiple-row functions with and without GROUP BY and HAVING clauses.
8. Determine when it is appropriate to use a sub query.
9. Distinguish between an outer query and single-row and multiple-row sub queries.
10. Create, rename, truncate, and drop tables.
11. Add, drop, modify, and rename columns in existing tables.
12. Distinguish among and create PRIMARY KEY, FOREIGN KEY, UNIQUE, CHECK, and NOT NULL constraints.
13. Distinguish between constraints at the column level and at the table level.
14. Use transaction control statements and commands, shared locks, and exclusive locks to submit query blocks.
15. Create, drop, and manage user accounts and privileges.
16. Use PL/SQL blocks, variables, and constants to script queries.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted