MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE
COURSE OUTLINE

Faculty is required to have the outline submitted to the Academic Affairs Office. The course outline is the form used for approval of new courses by the Academic Affairs and Standards Council.

DEPT. CSCI COURSE NUMBER: CSCI 2105

NUMBER OF CREDITS: 3

COURSE TITLE: Advanced Database Concepts with SQL

CATALOG DESCRIPTION: Introduces a comprehensive look at SQL (structured query language) which is a programming language that is used by diverse groups of programmers today. Learning of SQL commands and database design and the many uses of SQL.

AUDIENCE: open

FULFILLS MN TRANSFER CURRICULUM AREA(S) (Leave blank if not applicable)
Area: by meeting the following competencies:
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PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE: CSCI 1102, ACCT 1122

LENGTH OF COURSE: Semester

THIS COURSE IS USUALLY OFFERED:
Every other year □ fall □ spring □ summer □ undetermined □

Four goals are emphasized in course at Minnesota West Community & Technical College:

1) ACADEMIC CONTENT:
   a. Students will learn about SQL and advanced uses of databases and how to apply them to real world uses.

2) THINKING SKILLS:
   a. Students will decide what application methods will be needed to develop databases.
   b. Students will decide what database design fundamentals to use.
   c. Students will learn how to create advanced tables, different types of queries.
3) COMMUNICATIONS SKILLS:
   a. Students will interact with other students in developing and understanding
      and use of SQL.

4) HUMAN DIVERSITY:
   a. The student will learn how much SQL can make the ease sorting
      maintaining and retrieving of data for users.

TOPICS TO BE COVERED:
Advanced Database Designing
Creating Multiple Table Queries
Updating and creating new tables from existing tables
Database Administration
SQL Functions and Procedures
Oracle Databases
Functions and Procedures

COURSE LEARNING OUTCOMES (GENERAL):
1. Demonstrate the understanding on how to develop tables and queries
2. Demonstrate the ability to develop and utilize relational databases
3. Demonstrate the ability to develop multiple-table forms and create crosstab
   queries within database.

STUDENT LEARNING OUTCOMES (SPECIFIC):
1. Will create database administration features of SQL which include: use of views,
   granting and revoking user privileges, creating, dropping, and using an index.
2. Execute the use of the SQL commit, Rollback, update, insert, delete commands
   to update table data.
3. Create, maintain and learn how to update all of advanced features of the Oracle
   software application.

LEARNING/TEACHING TECHNIQUES used in the course are:
☐ Collaborative Learning    ☒ Problem Solving
☐ Student Presentations    ☐ Interactive Lectures
☒ Creative Projects         ☒ Individual Coaching
☒ Lecture                  ☐ Films/Videos/Slides
☐ Demonstrations           ☐ Other (describe below)
☒ Lab

ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:
☒ Reading                  ☒ Tests                  ☒ Individual Projects
☐ Oral Presentations      ☐ Worksheets              ☐ Collaborative Projects
☒ Textbook Problems        ☐ Papers                  ☐ Portfolio
☐ Group Problems           ☐ Term Paper              ☐
Veteran Services: Minnesota West is dedicated to assisting veterans and eligible family members in achieving their educational goals efficiently. Active duty and reserve/guard military members should advise their instructor of all regularly scheduled military appointments and duties that conflict with scheduled course requirements. Instructors will make every effort to work with the student to identify adjusted timelines. If you are a veteran, please contact the Minnesota West Veterans Service Office.

The information in this course outline is subject to revision

To receive reasonable accommodations for a documented disability, please contact the campus Student Services Advisor or campus Disability Coordinator as arrangements must be made in advance. In addition, students are encouraged to notify their instructor.

This document is available in alternative formats to individuals with disabilities by contacting the Student Services Advisor or by calling 800-658-2330 or via your preferred Telecommunications Relay Service.

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Revised 10/1/16