



BAKER COLLEGE

STUDENT LEARNING OUTCOMES

CS4210 Database Programming I
3 Semester Hours

Student Learning Outcomes and Enabling Objectives

SLO1: Demonstrate an understanding of Database terminology

- A. Describe data storage structures and database instances
- B. Describe block processing for queries and control structures.
- C. Explain host or bin variables and how to use %TYPE and %ROWTYPE attribute.

SLO 2: Interact with a relational database management system

- A. Install Oracle software.
- B. Demonstrate exception-handling and issues
- C. Construct looping action and decision structures: IF-THEN and CASE.

SLO 3: Demonstrate the ability to develop and correct database programs

- A. Explain techniques for debugging PL/SQL programs.
- B. Solve errors with exception handlers

SLO 4: Discuss the ability to create Stored Procedures

- A. Perform calculations with variables from PL/SQL block
- B. Demonstrate the create, call, and remove procedures using DBMS_OUTPUT.

SLO 5: Demonstrate ability to use a compiler

- A. Explain the use of IN/OUT and passing of parameter values
- B. Describe how to trap common runtime errors

SLO 6: Display proficiency in coding PL/SQL programs

- A. Write SQL queries within PL/SQL and the use of SQL single-row functions in PL/SQL.
- B. Demonstrate how to embed DML statements within PL/SQL.

Big Ideas and Essential Questions

Big Ideas:

- Evolution of Databases
- Core Principles of Oracle Databases
- Problem Solving using PL/SQL programming environment

Essential Questions:

1. What are the elements of Oracle databases?
2. What are the limitations of programming in PL/SQL?
3. Why do programmers use PL/SQL rather than other programming languages?

These SLOs are approved for experiential credit.

Effective: Fall 2017