BROWARD COMMUNITY COLLEGE
Course Outline

Status: A

COMMON COURSE NUMBER: CTS 2445C

COURSE TITLE: Oracle Developer: Develop PL/SQL Program Units

CREDIT HOURS: 4

CONTACT HOURS BREAKDOWN:

Lecture/Discussion	56
Lab	8
Other	0
Contact Hours/Week	4

CATALOG COURSE DESCRIPTION:

This course enables students to learn how to write PL/SQL procedures, functions and packages. Working in both the Procedure Builder and the SQL*Plus environments, students will learn how to create and manage PL/SQL program units and database triggers. Students will also learn how to use some of the Oracle-supplied packages. This course is designed to prepare students to successfully complete one of the Oracle Application Developer certification exams.

Prerequisites: COP 2740C

Corequisite: None

General Education Requirements – Associate of Arts Degree, meets Area(s):
General Education Requirements – Associate of Science Degree, meets Area(s):

UNIT TITLES:

Unit 1: Overview of PL/SQL
Unit 2: Working with Procedure Builder
Unit 3: Creating Procedures
Unit 4: Creating Advanced Procedures
Unit 5: Creating Packages
Unit 6: Creating Database Triggers

I. Course Overview:

Upon successful completion of this course, students will be able to:

Manage PL/SQL program constructs
Describe the PL/SQL development environments
Describe Oracle supplied packages
Manipulate large objects (LOB)
Create, execute, and maintain procedures, functions, packages, database triggers, and object types

II. Units:

Unit 1: Overview of PL/SQL

General Objectives:

1.0 This unit teaches students how PL/SQL functions and the environment established by Oracle.

Specific Learning Outcomes:

Upon successful completion of this unit, students will be able to:

1.1 Distinguish between anonymous PL/SQL blocks and PL/SQL subprograms.

1.2 Describe the PL/SQL development environment.

Unit 2: Working with Procedure Builder

General Objectives:

2.0 This unit teaches students how to work with the Procedure Builder portion of Oracle.

Specific Learning Outcomes:

Upon successful completion of this unit, students will be able to:

2.1 Describe the features of Procedure Builder.

2.2 Manage program units using the Object Navigator.

2.3 Create and compile program units using the Program Unit Editor

2.4 Invoke program units using the PL/SQL interpreter.

Unit 3: Creating Procedures

General Objectives:

3.0 This unit teaches students to create procedures for PL/SQL programs.

Specific Learning Outcomes:

Upon successful completion of this unit, students will be able to:

3.1 Describe the uses of procedures.

3.2 Create client-side and server-side procedures.

3.3 Create procedures with arguments.

3.4 Invoke a procedure.

3.5 Remove a procedure.

Unit 4: Creating Advanced Procedures

General Objectives:

4.0 This unit teaches students to create more advanced procedures to interact with their PL/SQL programs.

Specific Learning Outcomes:

Upon successful completion of this unit, students will be able to:

4.1 Describe the uses of functions.

4.2 Create client-side and server-side functions.

4.3 Invoke a function.

4.4 Remove a function.

4.5 Differentiate between a procedure and a function.

Unit 5: Creating Packages

General Objectives:

5.0 This unit teaches students to create PL/SQL packages.

Specific Learning Outcomes:

Upon successful completion of this unit, students will be able to:

5.1 Describe packages and list their possible components.

5.2 Create a package to group together related variables, cursors, constructs, exceptions, procedures and functions.

5.3 Make a package construct either public or private.

5.4 Invoke a package construct.

5.5 Write packages that make use of the overloading feature of PL/SQL.

5.6 Avoid errors with mutually referential subprograms.

5.7 Initialize public or private variables with an automatic one time only procedure.

5.8 Declare ref cursors in a package.

Unit 6: Creating Database Triggers

General Objectives:

6.0 This unit teaches students to create database triggers within their PL/SQL program code.

Specific Learning Outcomes:

Upon successful completion of this unit, students will be able to:

6.1 Describe database triggers and their use.

6.2 Create database triggers.

6.3 Describe database trigger firing rules.

6.4 Drop database triggers.