# Department Master Syllabus Camden County College Blackwood, New Jersey

**Course Title:** Relational Database Management II

**Course Number**: CIS-242

**Department/Program Affiliation:** Computer Information Systems

**Date of Review:** July 2017

(This Department Master Syllabus has been examined by the program/department faculty members and it is decided that no revision is necessary at this time.)

**Date of Last Revision:** April 2012

(This Department Master Syllabus has been examined by the program/department faculty members and it is decided a change requiring a revision is necessary at this time.)

# Credits: 3

**Contact Hours:** Lecture 3 Lab 0 Other 0

**Prerequisites:** CIS-241

**Co-requisites:** None

**Course Description:** This course is a continuation of the first course (RDBMS-I) and is intended to provide the student with the detailed study of internet application development using the Forms Developer in the Oracle System, PL/SQL, and the Oracle Library Functions of the Structured Query Language (SQL). The main emphasis of this course is the development of internet applications using the relational database model and the Oracle tools. This course is taught in a room with computers. The students benefit by interacting with the material, however, there is no graded or mandatory student computer exercises required during the lecture. College level 3rd generation computer programming course or experience is required in this course.

**Course Student Learning Outcomes:** Cognitive, Psychomotor, Affective Domains) Upon completion of this course, the student will be able to:

1. Design relational databases based on the Third Normal Form as assessed tests, class participation, projects, homework assignments, etc.
2. Create single table forms (applications) using object oriented concepts as assessed tests, class participation, projects, homework assignments, etc.
3. Create multiple table forms (applications) using object oriented concepts as assessed tests, class participation, projects, homework assignments, etc.
4. Create SQL commands using many of the Oracle Library Functions as assessed tests, class participation, projects, homework assignments, etc.
5. Creating PL/SQL programs using both implicit and explicit cursors as assessed tests, class participation, projects, homework assignments, etc.

# Course Outline:

1. Fundamentals of PL/SQL.
2. Executing a PL/SQL program.
3. Manipulating character strings with PL/SQL.
4. Debugging PL/SQL programs.
5. PL/SQL decision control structures.
6. Loops in PL/SQL.
7. Implicit cursors in PL/SQL.
8. Explicit cursors in PL/SQL.
9. Handling runtime errors in PL/SQL.
10. Displaying forms in the web browser.
11. Using a Data Block.
12. Creating a single data block form.
13. Learning the Object Navigator.
14. Using the Data block and Layout wizards.
15. Learning all the tools in the Layout editor.
16. Creating a Master-Detail form.
17. Creating Control Block Palettes.
18. Using format masks.
19. Creating push buttons, radio buttons and check boxes.
20. Creating List of Value (LOV) display.
21. Using the LOV wizard.
22. Using Character Library Functions in SQL.
23. Using Math Library Functions in SQL.
24. Using Date Library Functions in SQL.
25. Nesting Library Functions.

# Course Activities:

The classroom activities will include formal and informal lectures where new material and assigned problems will be explained. Students will have the opportunity to contribute to the discussion and to ask questions about the material. Projects will be done outside of the regularly scheduled classroom hours.

**Assessment of Student Learning Outcomes:** The student will be evaluated on the degree to which student learning outcomes are achieved. A variety of methods may be used such as tests, class participation, projects, homework assignments, etc.

# Course Materials:

**Textbook(s):**

* 1. Title: Guide to Oracle 10g Author: Morrison-Morrison Publisher: Course Technology
  2. Title: Relational Database Transparency Masters (Chapters 4-6) Author: Lawrence A. Jadico, CCP

Publisher: LAJ Consultants

* 1. The Oracle 10g Developer Software for the student’s home computer (Included with the text book)

**Supplemental Materials:** Memory Flash Stick