# Department Master Syllabus Camden County College Blackwood, New Jersey

**Course Title:** Relational Database Management I

**Course Number**: CIS-241

**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:** March 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:** None

**Co-requisites:** None

**Course Description:** A detailed study of the Structured Query Language (SQL), Relational Database Model, Normal Form Theories, and Forms Generation and Report Generation. This model and design tools will be exemplified by the use of the Oracle Relational Database Management System and its developers tools. This course is taught in a room with computers, the students benefit by being able to interact with the material, however, there are no graded or mandatory student computer exercises required during the lecture.

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

1. Fully understand the theory of Relational Database systems as accessed tests, class participation, projects, homework assignments, etc.
2. Design relational databases based on the Third Normal Form (Industry Standard) as assessed tests, class participation, projects, homework assignments, etc.
3. Create table structures using the SQL language as assessed tests, class participation, projects, homework assignments, etc.
4. Retrieve and display database information using the SQL language (Simple and Complex Queries) as assessed tests, class participation, projects, homework assignments, etc.
5. Manipulate database information using the SQL language as assessed tests, class participation, projects, homework assignments, etc.
6. Perform calculations with numeric and date data as assessed tests, class participation, projects, homework assignments, etc.
7. Display data from multiple tables as assessed tests, class participation, projects, homework assignments, etc.
8. Manipulate character data using SQL as assessed tests, class participation, projects, homework assignments, etc.
9. Display date data in many formats as assessed tests, class participation, projects, homework assignments, etc.
10. Develop reports using the default Internal Report Writer as assessed tests, class participation, projects, homework assignments, etc.
11. Develop reports using additional commands in the Internal Report Writer as assessed tests, class participation, projects, homework assignments, etc.
12. Creating and using Views to enhance database security as assessed tests, class participation, projects, homework assignments, etc.

# Course Outline:

1. General introduction to Relational Databases.
2. Database Management System environment.
3. Advantages of a Relational Database.
4. SQL definition and history.
5. Advantages of SQL and Oracle.
6. The Relational Model definitions and all its rules.
7. Types of tables.
8. VIEW definition - why use VIEWS?
9. Relational Database Properties.
10. Relational Database Design using Normal Form Theory. 11.Introduction to the PC operating system and Oracle.
11. Oracle’s Logon and Logoff procedures.
12. The Structured Query Language (SQL) using Oracle. 14.The Internal Report Writer.
13. The SET commands. 16.Commit and Rollback Theory. 17.Grant and Revoke commands.

# 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: Oracle 10g: SQL Author: Joan Casteel Publisher: Course Technology
  2. Title: Relational Database Transparency Masters (Chapters 1-3) Author: Lawrence A. Jadico, CCP

Publisher: LAJ Consultants

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

**Supplemental Materials:** Memory Flash Stick