COUNTY COLLEGE OF MORRIS
Course Information Outline

Course Title Database Programming (Oracle) **PREFIX & NUMBER** CMP241

Lecture Hours 3 **Laboratory Hours** 1 **Credit Hours** 3 **Course Fee** $40

Faculty Course Coordinator Bonnie A. Murphy

Department Chairperson Approval Bonnie A. Murphy **Approval Date** 3/26/09

Division Dean Approval Patrick J. Enright **Approval Date** 5/1/09

1. **Catalog Course Description**
   This course will use the rules and syntax of an "industrial-strength" database programming language that can be used on all types of computers. Topics include relational database aspects, data input and validation, creation and maintenance of files, query, user control center, and application generator. Emphasis is on development of programs related to business database applications.

2. **Prerequisite(s)**
   CMP113 Computer Concepts and Problem Solving Techniques

3. **Co-requisite(s)**
   None

4. **Textbooks**
   Current Oracle Programming textbook

5. **Supplementary Books and/or Materials**
   Discrete Storage Media—flash drive; CD-R or CD-RW

6. **Specialized equipment, supplies, facilities, for classes limited by enrollment or restricted by accreditation and/or equipment limitations.** (Information will be used to determine differential funding category.)
   Computer laboratory giving each student his/her own workstation as enrollment is limited to the number of workstations contained in the lab.

7. **Course Content (List of Topics)**
   - Introduction to Databases
   - Storing and Retrieving Data—The Basics; Controlling SQL*Plus
   - Advanced Data Manipulation
   - SQL Functions
   - Using Indexes and Constraints
   - Other Use Oracle Techniques
   - PI/SQL Programming—Introduction; Procedures, Exception Section; Functions; Cursor; Triggers, ODBC

8. **Statement of Course LEARNING OUTCOMES**
   Upon completion of this course, students will:

- have the skill to program in an "industrial-strength" database programming language that can be used on all types of computers as demonstrated through successful completion of assignments projects, and examinations.
- have a full understanding of the Oracle Relational Database Management Systems (RDBMS) including relationships between tables, various table constraints, and the use of indexes as demonstrated through successful completion of assignments, projects, and examinations.
- have a full understanding of Oracle-Structured Query Language (SQL) and how to read and write data in an Oracle Database as demonstrated through successful completion of assignments, projects, and examinations.
- develop a working knowledge of Oracle's PL/SQL programming language as demonstrated through successful completion of assignments, projects, and examinations.
- demonstrate critical thinking and decision-making skill through successful completion of assignments, projects, and examinations.

9. Statement of Relation to Curriculum(s)

This course is an elective in Information Technology degree programs and certificate programs