# Database Applications Course No. 10053 Credit: 1.0

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| **Student name:** |  | **Graduation Date:** |  |

Pathways and CIP Codes:Programming & Software Development (11.0201)

Course Description: **Technical Level:** Database Application courses provide students with an understanding of database development, modeling, design, and normalization. These courses typically cover such topics as SELECT statements, data definition, manipulation, control languages, records, and tables. In these courses, students may use Oracle WebDB, SQL, PL/SQL, SPSS, and SAS and may prepare for certification.

Directions:The following competencies are required for full approval of this course. Check the appropriate number to indicate the level of competency reached for learner evaluation.

**RATING SCALE:**

4. Exemplary Achievement: Student possesses outstanding knowledge, skills or professional attitude.

3. Proficient Achievement:Student demonstrates good knowledge, skills or professional attitude. Requires limited supervision.

2. Limited Achievement:Student demonstrates fragmented knowledge, skills or professional attitude. Requires close supervision.

1. Inadequate Achievement:Student lacks knowledge, skills or professional attitude.

0. No Instruction/Training:Student has not received instruction or training in this area.

## Benchmark 1: Click or tap here to enter text.

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 1.1 | Develop programs using an appropriate query language. |  |
| 1.2 | Create, populate, and maintain a database. |  |
| 1.3 | Use integrated development environment tools to create and modify databases. |  |
| 1.4 | Demonstrate knowledge of relational database management systems. |  |
| 1.5 | Create and explain Entity Relationship Modeling charts and graphs. |  |
| 1.6 | Demonstrate knowledge of the basic principles for programming a query language. |  |
| 1.7 | Demonstrate ability to explain query syntax and data retrieval processes. |  |
| 1.8 | Demonstrate knowledge of constructs and operations specific to a query language. |  |
| 1.9 | Demonstrate knowledge and usage of query scripting languages (e.g., PL/SQL, T-SQL, PL/pgSQL). |  |
| 1.10 | Create a database from an entity relationship model using both program code and an integrated development environment. |  |
| 1.11 | Perform standard maintenance on the database. |  |
| 1.12 | Create and maintain indexes on databases. |  |
| 1.13 | Release software and documentation updates according to procedures. |  |
| 1.14 | Develop scripts and forms that permit access via websites to the database. |  |
| 1.15 | Identify and analyze potential security problems for web access to the database. |  |

I certify that the student has received training in the areas indicated.

Instructor Signature:

For more information, contact:

CTE Pathways Help Desk

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