Database Design III

Database Design III is a one-credit course designed to provide student learning through a project-based approach. Students analyze software packages, evaluate system and software requirements, implement an advanced database design project, and construct various kinds of conditional and iterative control statements. The prerequisite for this course is Database Design II.

Career and technical student organizations are integral, cocurricular components of each career and technical education course. These organizations serve as a means to enhance classroom instruction while helping students develop leadership abilities, expand workplace-readiness skills, and broaden opportunities for personal and professional growth.

Customer Services

Students will:

1. Compare Structured Query Language (SQL) to other languages to determine needs of the client.
2. Analyze predefined software packages for uses and benefits.
3. Implement an advanced database design project.
4. Determine how to handle errors and utilize the troubleshooting process.

Advanced Software Development

5. Analyze declaring variables, SQL functions, and trapping exceptions to build an advanced database.
6. Construct different kinds of conditional and iterative control statements.
7. Use cursors in multiple rows of tables.
8. Demonstrate the use of stored procedures and functions.
9. Demonstrate the procedure for accessing objects in the data dictionary.
10. Utilize mathematics skills in evaluating system and software requirements for database designs.
11. Create Programming Language/Structured Query Language (PL/SQL) packages parts, including specification and body.
12. Describe procedures of creating database triggers.
13. Implement Data Management Language (DML) components as used with triggers.
14. Construct objects to meet program requirements.

15. Demonstrate steps of the software development process.

16. Demonstrate the use of large object (LOB) data types in a database design.

17. Describe implications of procedural dependencies.

**Career Opportunities**

18. Utilize research results to determine career and entrepreneurial opportunities, responsibilities, and educational and credentialing requirements in specialized database design.