

Common Course Outline

CSIT 134

Comprehensive Databases

3 Semester Hours

The Community College of Baltimore County

Description

CSIT 134 - 3 Credits - Comprehensive Databases provides an introduction to databases and database management systems (DBMS) and an opportunity to design, create, and modify a database using MS Access; discusses retrieval of information by creating queries, reports, and forms.

3 credits: 3 lecture hours per week

Prerequisite: CSIT 101 or CSIT 116 or consent of the Program Director

Overall Course Objectives

Upon completion of this course the student will be able to:

1. distinguish between a database and a traditional file;
2. identify the major components of a DBMS (Database Management System);
3. design a database;
4. create keys;
5. implement integrity constraints;
6. create a database;
7. maintain a database;
8. query a database;
9. create forms;
10. create reports;
11. create macros;
12. create modules;
13. integrate Access with other programs and XML (Extensible Markup Language); and
14. write and interpret basic SQL (Structured Query Language) statements: SELECT, FROM, WHERE, ORDER BY, GROUP BY.

Major Topics

- I. Comparison of file processing and database processing
- II. Components of a DBMS
- III. Functions of a DBMS
- IV. Relational Database Structures/Terminology
- V. Keys
- VI. Database design
- VII. Relationships
- VIII. Integrity constraints
- IX. Database creation
- X. Database modification
- XI. Queries
- XII. Forms
- XIII. Reports
- XIV. Macros
- XV. Modules/VBA (Visual Basic for Applications)
- XVI. Compacting
- XVII. Replication/Synchronization
- XVIII. Importing data
- XIX. Exporting data
- XX. Integrating with other programs
- XXI. Integrating data using XML
- XXII. SQL

Course Requirements

Grading/exams: Grading procedures will be determined by the individual faculty member but will include the following:

- At least two projects of increasing difficulty
- At least two exams
- A comprehensive final exam

Other Course Information

This course is taught in a computerized environment.

A grade of C or better in this course is needed in order to register for any CSIT 200 level courses for which this course is a prerequisite.