

Common Course Outline

CSIT 212

Visual Basic Programming

4 Semester Hours

The Community College of Baltimore County

Description

CSIT 212 – 4 credits - Visual Basic Programming emphasizes design and development considerations for Windows based application programs; includes object-oriented programming concepts, user interface design, program flow, debugging techniques, and file access.

4 credits: 4 lecture hours per week

Prerequisite: CSIT 111 or written consent of the Program Director.

Overall Course Objectives

Upon successful completion of the course students will be able to:

1. identify the steps in the software design process for an event-driven language;
2. plan the user-interface;
3. determine the object properties;
4. plan the code;
5. demonstrate the ability to evaluate and use existing GUI components in the construction of an effective user interface for an application;
6. identify the data types and variable/constant naming conventions;
7. demonstrate how to do calculations;
8. identify techniques for formatting output data;
9. construct programs using the 3 control structures: sequence, selection, and repetition;
10. use arrays;
11. use debugging tools;
12. demonstrate the importance of data validation;
13. incorporate multi-form projects;
14. identify, explain, and discuss the data hierarchy;
15. process sequential files;
16. access databases; and
17. demonstrate the importance of testing and validating the solution.

Major Topics

- I. Use of Integrated Development Environment
- II. Design process
 - a. Plan the user interface
 - b. Determine properties
 - c. Plan the code

Date revised 3/29/2011

- III. Identifiers
 - a. Variables
 - b. Constants
- IV. Calculations
- V. Selection
 - a. Simple If
 - b. Nested If
 - c. Case structure
- VI. Menus
- VII. Reusable code
 - a. Call statement
 - b. Sub procedures
 - c. Functions
- VIII. Multiple forms
 - a. Splash screens
 - b. About forms
 - c. Summary forms
- IX. Repetition
 - a. Do until structure
 - b. Do while structure
 - c. For/Next
- X. Output
 - a. Formatting functions
 - b. Using the printer
- XI. Arrays
 - a. List/Combo boxes
 - b. Control arrays
 - c. One and two dimensional arrays
- XII. Data files
 - a. Data vocabulary
 - b. Sequential files
 - c. Accessing database tables

Course Requirements

Grading: Grading procedures will be determined by the faculty member, will be provided the first week of class, and will include:

1. Minimum of 5 programming projects*
2. Minimum of 2 tests
3. Comprehensive final exam or programming project

*These projects will include collaborative work, written portions and oral presentations as assigned by the faculty member.

Other Course Information

This course is required in Information Technology Programming option.