

# **CSIT 212**

## **Visual Basic Programming**

4 Credits

Community College of Baltimore County  
Common Course Outline

### **Description**

**CSIT 212 – Visual Basic Programming:** emphasizes design and development considerations for Windows based application programs using Visual Basic. Topics include object-oriented programming concepts, user interface design, control structures, file I/O, arrays, program flow, and debugging techniques. Students are required to have or have access to a Windows based computer to complete this course.

**Pre-requisites:** CSIT 111 or consent of the Program Director

### **Overall Course Objectives**

Upon completion of this course, students will be able to:

1. identify the steps in the software design process for an event-driven language;
2. design and implement a user-friendly graphical user interface (GUI);
3. select appropriate object properties in an application;
4. document events and event processing that must occur in the application;
5. evaluate GUI components in the design of an application;
6. use GUI components in the implementation of an application;
7. identify data types and variable naming conventions;
8. develop programs that perform calculations to solve problems;
9. use functions for formatting output data;
10. design algorithms using control structures, sequence, selection, and repetition;
11. construct programs that use arrays;
12. validate data using exception handling procedures;
13. design applications that process sequential files;
14. design applications that access databases; and
15. demonstrate the process of testing and validating a solution.

### **Major Topics**

- I. Integrated Development Environment
- II. Program development cycle
  - a. Design the solution
  - b. Code
  - c. Test
  - d. Document
- III. Identifiers and data types
- IV. Boolean and arithmetic expressions
- V. Selection

The Common Course Outline (CCO) determines the essential nature of each course.  
For more information, see your professor's syllabus.

- a. Simple if statements
- b. Nested if statements
- c. Case structure
- VI. Menus
- VII. Reusable code
  - a. Call statements
  - b. Sub procedures
  - c. Functions
- VIII. Multiple forms
  - a. Splash screens
  - b. About forms
  - c. Summary forms
- IX. Repetition
  - a. Do until
  - b. Do while
  - c. For next
- X. Input and output
- XI. Arrays
- XII. Data files
  - a. Data vocabulary
  - b. Sequential files
  - c. Accessing database tables

### **Course Requirements**

Grading will be determined by the individual faculty member, but shall include the following, at minimum:

- Five comprehensive programming projects
- Two exams
- Comprehensive final exam or capstone programming project

### **Other Course Information**

Students are required to have or have access to a Windows based computer to complete this course.

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