
Course Prefix/Number: CPT 212
Course Title: Visual Basic Programming
Lec Hours/Week: 3.0
Lab Hours/Week: 0.0
Credit Hours/Semester: 3.0

[Distance Learning Attendance/VA Statement](#)
[Textbook Information](#)

COURSE DESCRIPTION

This course focuses on windows programming using visual basic to create graphical user interfaces. This course examines forms, controls, graphical controls, loops, control arrays, database and traditional file processing, and application class scheduling.

COURSE COMPETENCIES

Upon successful completion of this course, the student should be competent to complete the following tasks:

Module 1 - VB Basics

- Describe the benefits of using Visual Basic to create event-driven, Windows-based applications
- Design forms with labels, text boxes, and buttons
- Produce screen output in dialog boxes, labels, and text boxes
- Obtain input from the keyboard through input boxes and text fields
- Describe the differences between the basic data types used in Visual Basic
- Declare and initialize variables
- Evaluate mathematical expressions and store the resulting value in a variable using arithmetic and assignment operators
- Document code with well-placed, descriptive comments
- Manipulate String variables using methods provided by the String class

Module 2 - Control Structures

- Solve problems requiring the use of nested if/else statements
- Create logical expressions with relational and logical operators
- Solve problems requiring the use of while and until loop structures
- Solve problems using for loops
- Solve problems using the select case structure

Module 3 - Procedures

- Write a function call, given the description a pre-defined function
- Describe the difference between sub procedures and function procedures
- Write procedures using call-by-value and call-by-reference parameters
- Explain the relative benefits of using call-by-value and call-by-reference
- Relate the effect of procedures on program design and testing
- Describe and effectively use variables in the automatic and static storage classes
- Describe and effectively use variables and functions with local, module, or public scope

Module 4 - Arrays

- Declare and initialize single-subscripted and multi-subscripted arrays
- Input, output, and manipulate the values in an array
- Create procedures that take arrays as parameters

- Describe how to search an array
- Find and correct syntax and logic errors in programs containing arrays

MINIMAL STANDARDS

Minimal standards of performance on all course competencies for receiving credit for the course are indicated by 60% overall accuracy on evaluation instruments that address the course competencies listed above. Required standards of performance on all course competencies for enrollment in subsequent higher level computer technology courses are indicated by 70% overall accuracy on evaluation instruments that address the course competencies listed above.

COURSE REQUIREMENTS

Students are responsible for attending all scheduled class meetings until they have completed all course requirements. Any student caught cheating or involved in other academic dishonesty will be given a grade of zero and will be subject to further disciplinary action.

Attendance Policy

The attendance policy as stated in the York Technical College Handbook will be enforced. Make-up tests will not be given for theory tests. If a student must miss a theory test, he/she will get a zero for that test. However, students have the option of taking the comprehensive final. The student’s grade on the comprehensive final will replace his/her lowest theory test grade. It is the student’s responsibility to schedule a time for a make-up hands-on test with his/her instructor.

Disabilities Statement

Any student who feels s/he may need an accommodation based on the impact of a disability should contact the Special Resources Office (SRO) at 803-327-8007 in the 300 area of Student Services. The SRO coordinates reasonable accommodations for students with documented disabilities.

EVALUATION STRATEGIES/GRADING

Module 1 (25% total) Test(s) – 12.5% Program(s)/Homework – 12.5%	Module 2 (25% total) Test(s) – 12.5% Program(s)/Homework – 12.5%	Grading Scale	
		90-100	A
Module 3 (25% total) Test(s) – 12.5% Program(s)/Homework – 12.5%	Module 4 (25% total) Test(s) – 12.5% *Program(s)/Homework – 12.5%	89-89	B
		70-79	C
		60-69	D
		Below 60	F

*Completion of Module 4 Program(s) is required to receive a grade for the course

ENTRY LEVEL SKILLS

A student entering this course should be familiar with structured programming concepts, have adequate flowcharting skills and be familiar with the Windows environment.

PREREQUISITES: CPT 114 and CPT 168 with minimum grades of “C”.

CO-REQUISITES: None

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