Department:

Computer Support Technology

Course Description:

This course is designed to provide an introduction to computer programming. The course will cover basic programming skills such as form and menu creation, decision making, looping arrays and subroutines, and database interfacing. The course will introduce students to programming in a Windows environment using Visual Basic.

Course Competencies:

Upon completion of the course, the student should be able to:

1. Explain the fundamentals of the Visual Basic programming language.
2. Apply graphical user interface design principles.
3. Use the development cycle when creating applications which mirror the same approach professional developers use.
4. Illustrate well-written and readable programs using a disciplined coding style, including documentation and indentation standards.
5. Demonstrate how to implement logic involving sequence, selections, and repetition using Visual Basic.
6. Write useful, well-designed programs for personal computers and handheld devices that solve practical business problems.
7. Independently explore other uses of Visual Basic programming.

Course Content:

A. Introduction to Visual Basic 2010
B. Creating a User Interface
C. Variables, Constants, and Arithmetic Operators
D. Making Decisions in a Program
E. More on the Selection Structure
F. The Do Loop and List Boxes
G. The For...Next Loop
H. Sub and Function Procedures
I. Arrays
J. Structures and Sequential Access Files
K. String Manipulation
L. Creating Classes and Objects
M. Working with Access Databases and LINQ
N. Creating Web Applications
O. How-to Boxes
P. Most Commonly Used Properties of Objects
Q. Visual Basic Conversion Functions
R. GUI Design Guidelines
S. Creating Menus

Learning Assessments:

Competencies will be assessed by assignments, case problems, quizzes, chapter tests, hands-on projects, lab assignments, a midterm test, and a final test. Exams may be in the objective or problem solving format.

Instructional Materials:


Guidelines for Requesting Accommodations Based on Documented Disability or Medical Condition

It is the intention of Highland Community College to work toward full compliance with the Americans with Disabilities Act, to make instructional programs accessible to all people, and to provide reasonable accommodations according to the law.

Students should understand that it is their responsibility to self-identify their need(s) for accommodation and that they must provide current, comprehensive diagnosis of a specific disability or medical condition from a qualified professional in order to receive services. Documentation must include specific recommendations for accommodation(s). Documentation should be provided in a timely manner prior to or early in the semester so that the requested accommodation can be considered and, if warranted, arranged.

In order to begin the process all students **must** complete the “Disabilities Self-Identification Form” at this link: https://highlandcc.edu/pages/disability-services.

This form can also be accessed at the Highland Community College homepage under Students Services/Student Resources/Disability Service or by contacting the Disabilities Coordinator.