



**Ephrata High School**  
**Course Syllabus**  
**Visual Basic Computer Programming Intro**  
**3100**



### *I. Course Description*

This course provides an introduction to programming using the computer language Visual Basic. Deductive reasoning and problem-solving skills are developed as students learn to write professional-quality programs involving graphics, animation, arrays, data controls, and decision-making structures.

### *II. Materials & Equipment*

None

### *III. Course Goals & Objectives*

Enduring Understandings: Students will understand how to

- Use Visual Basic objects, controls, properties, methods, and events.
- Create a GUI.
- Run, save, and print a project.
- Use Hungarian notation and the control-naming scheme.
- Use the program development cycle to create programs.
- Manipulate and use numeric and string variables.
- Use textboxes and input boxes to get input from the user.
- Format output.
- Use If-Block and Select-Case structures.
- Use For-Next and Do-While Loops.
- Create object arrays.
- Use the Visual Basic debugging tools.
- Incorporate general procedures with passing in an application.
- Use functions (user-defined and built-in) and constants

### *IV. Course Topics (Summary Outline)*

#### I. Writing a Program

- Setting up a GUI
- Using objects and properties
- Hungarian notation
- Basic procedures
- Graphics: lines, shapes, and pictures
- User-defined and built-in functions and constants

#### II. Data Input, Process, and Output

- Following the program development cycle
- Mathematical operators
- Numeric and string variables
- Creating input boxes and message boxes
- Formatting
- Using debugging tools
- Menus

#### III. Decision Structures

- If-Blocks
- If-Else Blocks
- Select-Case
- Nested Blocks
- Multiple forms

#### IV. Repetition

- For-Next Loops
- Do-While Loops
- Call Statements

- Arrays
- Animation

### *V. Assignments & Grading*

Grades will be based on in-class projects (both individual and partner), homework assignments, and tests. The Ephrata High School grading system and scale will be used to determine letter grades.