

INTRODUCTION TO BASIC PROGRAMMING/VISUAL BASIC  
GRADES 9-12  
(1 Semester - No Prerequisites)

COURSE OVERVIEW:

This class is an introduction to computer programming utilizing Visual Basic 6.0. Students will learn to utilize fundamental statements to construct programs accomplishing basic and intermediate programming tasks in a systematic and structured manner.

The application and control of logical processes to the solution of simple to complex problems is an integral part of this course. Students who have difficulty with problem solving need to be aware that this is a large portion of this class.

NOTE: Computer programming is a technical endeavor. It requires a commitment to careful and continued adherence to logic, structure, and detail.

UNITS OF INSTRUCTION:

- UNIT I - Introduction to Computer Systems and Visual Basic
- UNIT II - Introduction to Flowcharts and Logic
- UNIT III - Declaring Variables and Menus
- UNIT IV - Input and Output
- UNIT V - Introduction to Case Structures, Decision Structures, and Loops
- UNIT VI - Arrays, Dates, Randomization
- UNIT VII - Modularizing Programs, Procedures, MDI Forms
- UNIT VIII - Accessing Data and Graphics

COURSE OUTCOMES:

1. Develop skills to utilize the components of a computer system and Visual Basic.
2. Identify different levels of programming languages.
3. Demonstrate the creation of a flowchart with symbols, including terminal, input/output, decision structures, and processing symbols.
4. Solve all levels of problems using algorithms and the problem-solving process.
5. Apply "If" statements, relational operators, decision structures, and logical operators to pre-existing programs.

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| 6. | Create SUB procedures, stand-alone modules, and functions.  |
| 7. | Compare and contrast the differences in public and private variable declarations.   |
| 8. | Construct different loops within Visual Basic programs, such as DO WHILE...LOOP, DO UNTIL...LOOP, FOR...NEXT, and NESTED CASE STRUCTURES. |

LEARNING EXPERIENCES TO ACHIEVE OUTCOMES:

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| 1. | Prepare project programs prior to entry by writing them out completely and desk checking. |
| 2. | Organize time to complete projects as assigned.   |

ADOPTED TEXT OR PRINCIPAL MATERIALS USED:

Dulaney, Emmett. <i>Visual Basic 6.0</i> . New York: Glencoe/McGraw-Hill, 2000. (adopted 2003)
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(03/25/04)  
(06/28/99)  
(05/08/95)