



# Southern Lehigh School District

High School Syllabus

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## **Introduction To Computer Science I** School Year 2014-2015

### Course Description:

This course explores and develops programming techniques commonly used in event-driven windows programming. This course will cover the basic syntax, logic, and operation of the Visual Basic language. In this course students will create interfaces and applications, set properties, and are fully responsible for writing, implementing, documenting, and evaluating their solutions using the Visual Basic programming language. Students will be responsible for defining problems using prior mathematics, logic, and problem solving skills, writing pseudo code, analyzing data, testing, debugging, and modifying programs in order to solve real world problems.

### Course Content:

History of programming language  
Machine languages  
Assembly Languages  
High-Level Languages  
Procedural – Oriented/Event-Driven High-Level Languages  
OOP Terminology  
Introduction To Visual Basic  
Starting Visual basic  
Creating a New Project  
The Visual Basic Environment  
Control Properties  
Visual Basic Help  
Adding Controls to a Form  
Sizing, Moving, Deleting Controls  
Writing Code  
Command Buttons  
Printing the code and application  
Making an EXE

### Required Textbooks and/or Other Reading/Research Materials

*Text: Visual Basic 2008 for Windows, Mobile, Web, Office, and Database Applications.  
Comprehensive Copy write 2009*

## Course Requirements:

Students will be able to:

### Plan an OOED Application in Visual Basic

- Building the Interface
- Add a TextBox Control to a form
- Controlling focus
- Locking A controls
- Coding testing and debugging
- Assigning a value to a property during runtime
- Clear Screen Button
- Visual Basic Equations
- Format Function
- Standard Dialog Boxes

### Using Variables and constants

- Declaring a variable
- Storing Data in a variable
- Scope of a variable
- Local Variables
- Global Variables
- Form level variables
- InputDialog Function
- Adding Forms to an application

### The selection structure

- Logical Operators
- Select Case statement
- CheckBox Control
- Radio Buttons
- Frames
- Random Number Generation
- The Craps Game
- Loading Pictures

### Repetition Structures

- For Loop
- DO While Loop
- Do Until Loop
- Arrays

## Grade Components/Assessments:

Grades will be based on

- In class key with me 20%
- In class labs 40%
- In class tests 40%

Each marking period is worth 20% of a student's overall grade. The final is worth 20% of a student's overall average:

Quarter 1	20%
Quarter 2	20%
Quarter 3	20%
Quarter 4	20%
<b>Final</b>	<b>20%</b>

Required Summer Reading/Assignments:

None