Microsoft Excel®: Excel Visual Basic for Applications (VBA)

12 Hours over 2 Days

This class is a programming class. Students should be proficient in using Microsoft Excel before taking this class.

### **Chapter 1 - Getting started**

* Introducing Excel VBA
* Macros
* The Developer Ribbon
* Recording a macro using Absolute and Relative references
* Recording an Absolute Macro
* Running a macro using the ribbon
* Running a macro using a shortcut key
* Creating an icon on the Quick Access Toolbar to run a macro
* Adding a command button to run a macro
* Recording a Relative Macro
* Viewing the Visual Basic for Applications (VBA) code
* Editing a macro in the VBA Editor
* Understanding the development environment
* The Object Browser
* Using Visual Basic Help
* Closing the Visual Basic Editor

### **Chapter 2 - Working with procedures and functions**

* Understanding modules
* Creating a Standard Module
* Understanding procedures
* Creating a Sub Procedure
* Calling Procedures from inside other procedures
* Using the Immediate Window
* Creating a Function Procedure
* Naming procedures
* Working with the Code Editor
* Colors used in coding
* Using capitalization while coding
* Setting Code Editor Options
* Code settings
  + Window settings
  + Guidelines for editing code
  + Commenting code
  + Finding code
  + Complete Word feature

### **Chapter 3 - Understanding objects**

* Understanding objects
  + Navigating the Excel Object Hierarchy
  + Understanding collections
  + Using the Object Browser
  + Working with properties
  + Using the With Statement
  + Working with methods
  + Creating an Event Procedure

### **Chapter 4 - Using expressions, variables, and intrinsic functions**

* Understanding expressions and statements
* Declaring variables
* Explicit vs. implicit variable declaration
* Working with Declaration Statements
* Working with variable scope
* Naming variables
* Understanding Data Types
* Creating an Assignment Statement
* Using intrinsic functions
* Understanding constants
* Using intrinsic constants
* Using Message Boxes
* Using Input Boxes
* Declaring and using Object Variables

### **Chapter 5 – Controlling program execution**

* Understanding control-of-flow structures
* Working with Boolean expressions
* Comparison Operators and Logical Operators (Keyword Operators)
* Using the If…End If decision structures
* If…Then Statements
* If…Then…Else Statements
* Using the Select Case…End Select structure
* Using the Do…Loop structure
* Using the For…To…Next structure
* For…Next Statements
* Using the For Each…Next structure
* Guidelines for use of control-of-flow structures

### **Chapter 6 - Working with forms and controls**

* Understanding UserForms
* Using the Toolbox
* Working with UserForm properties, events and methods
* Understanding controls
* Setting control properties in the Properties Window
* Working with the Label Control
* Working with the Text Box Control
* Working with the Command Button Control
* Working with the Combo Box Control
* Populating a control
* Working with the Frame Control
* Working with Option Button Controls
* Working with control appearance
* Setting the tab order
* Adding code to controls
* Launching a form in code

### **Chapter 7 - Working with the PivotTable object**

* Understanding PivotTables
* Creating a PivotTable
* Working with the PivotTable Wizard method
* Working with PivotFields
* Assigning a procedure to a custom toolbar

### **Chapter 8 - Debugging Code**

* Understanding errors
* Using debugging tools
* Setting Breakpoints
* Stepping through code
* Using Break Mode during Run Mode
* Determining the value of expressions

### **Chapter 9 - Handling errors**

* Understanding error handling
* Understanding VBA’s error trapping options
* Trapping errors with the On Error statement
* Understanding the Err object
* Writing an error-handling routine
* Working with inline error handling