

Excel 2013/2016 Programming with VBA Course Outline

(3 days)

Version 2013/2016

Prerequisite

Proficient knowledge of Microsoft Excel. Knowledge of PivotTables helpful but not required.

Getting Started

- Introducing Visual Basic for Applications
- Displaying the Developer Tab in the Ribbon
- Recording a Macro
- Saving a Macro-Enabled Workbook
- Running a Macro
- Editing a Macro in the Visual Basic Editor
- Understanding the Development Environment
- Using Visual Basic Help
- Closing the Visual Basic Editor
- Understanding Macro Security

Working with Procedures and Functions

- Understanding Modules
- Creating a Standard Module
- Understanding Procedures
- Creating a Sub Procedure
- Calling Procedures
- Using the Immediate Window to Call Procedures
- Creating a Function Procedure
- Naming Procedures
- Working with the Code Editor

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

Using Expressions, Variables, and Intrinsic Functions

- Understanding Expressions and Statements
- Declaring Variables
- Understanding Data Types
- Working with Variable Scope
- Using Intrinsic Functions
- Understanding Constants
- Using Intrinsic Constants
- Using Message Boxes
- Using Input Boxes
- Declaring and Using Object Variables

Controlling Program Execution

- Understanding Control-of-Flow Structures
- Working with Boolean Expressions
- Using the If...End If Decision Structures
- Using the Select Case...End Select Structure
- Using the Do...Loop Structure
- Using the For...To...Next Structure
- Using the For Each...Next Structure
- Guidelines for use of Control-of-Flow Structures

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
- Working with the Frame Control
- Working with Option Button Controls
- Working with Control Appearance
- Setting the Tab Order
- Populating a Control
- Adding Code to Controls
- Launching a Form in Code

Working with the PivotTable Object

- Understanding PivotTables
- Creating a PivotTable Using Worksheet Data
- Working with the PivotTable Objects
- Working with the PivotFields Collection
- Assigning a Macro to the Quick Access Toolbar

Debugging Code

- Understanding Errors
- Using Debugging Tools
- Setting Breakpoints
- Stepping through Code
- Using Break Mode during Run mode
- Determining the Value of Expressions

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