Excel 2013/2016 Programming with VBA

Price: $ 895

Course Description:
For experienced Microsoft Office-application users who want to write macros and automate Excel applications. Learn how to use the Visual Basic programming language and various Excel objects to write code that can control Excel.

Duration: Instructor-led, group-paced, classroom-delivery learning model with structured hands-on activities
21 hours (3 days)

Course Objectives: For advanced Microsoft Office professionals who want to learn the basics of VBA programming for automating tasks.

Upon successful completion of this course, students will be able to:

- Record and edit Macros
- Use the Visual Basic Editor
- Create sub and function procedures
- Understand objects, properties, methods, and events
- Explore the Excel object hierarchy and use the Object Browser
- Work with variables and understand data types
- Use intrinsic functions
- Work with control-of-flow structures
- Design UserForms and work with controls
- Control PivotTables programmatically
- Use debugging tools
- Add error handling to code

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

Course Outline

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

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Course Outline

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