

**Excel 2019 VBA Including Your VBA Projects**

**Course Number:** VBA-135  
**Duration:** 4 days

**Overview**

Accelebrate's Excel 2019 VBA training teaches attendees how to automate Excel 2019 using Visual Basic for Applications. Students take their skills to the next level with advanced topics including querying databases, interfacing with other Office products, troubleshooting, and more.

**Important Note:**This 4-day course includes a day of time spent working on your actual VBA projects, existing and under development. We also offer a [3-day "off-the-shelf" version](file:////training/vba-excel-2019) without the extra day to work on your specific projects.

**Prerequisites**

All attendees must have prior knowledge of Excel 2019. Prior scripting or programming knowledge is very helpful but not required.

**Materials**

All Excel VBA training attendees receive comprehensive courseware.

**Software Needed on Each Student PC**

* A full installation of Microsoft Office 2019 (or at least Excel and Access), including Visual Basic support and Visual Basic Help.
* If you have purchased this course, please contact us for detailed setup instructions.

**Objectives**

All attendees will:

* Use the main features of the VBA Editor window and learn core VBA concepts.
* Build sub procedures and user-defined functions.
* Learn the Excel object model and write code to control Excel objects.
* Create and use variables.
* Use a wide array of standard programming techniques.
* Create a user interface (a custom form complete with a variety of controls and code to drive the user form).
* Create PivotTables programmatically.
* Learn and use multiple troubleshooting and debugging features.
* Incorporate error handlers to deal with unforeseen issues.
* Explore additional advanced areas such as querying databases, interfacing with other Office products, reading external files, and various design, performance, and troubleshooting tips.
* Receive assistance with your organization's own specific needs and goals. We work with you to design, develop, and debug your company’s projects.

**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
* 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
* Your Own Project Topics/Advanced Topics
  + Access data from external sources such as Access, Oracle, SQL Server, etc.
  + Interface with other products, such as Word, Outlook, PowerPoint
  + Retrieve and update data in external files
  + Troubleshoot existing logic failures
  + Improve performance
  + Designing macros for speed, reduce errors and maintainability
  + Any other projects with which you would like help
* Conclusion