



Excel: Introduction to VBA

In the previous Excel courses, you used Excel to simplify business tasks, including the creation of spreadsheets, graphs, charts, and formulas that were difficult to create and nearly impossible to maintain using pencil and paper. You now want to simplify your work in the Excel environment by automating many of the repetitive tasks that are part of spreadsheet development. In Excel 2010: Introduction to VBA you apply the Visual Basic for Applications (VBA) programming language to simplify many of the tasks you learned in Excel: Level 1 and Excel: Level 2.

Who should take this course?

This course is designed for those who desire to learn how to create macros. This course introduces Visual Basic for Applications (VBA) in Excel to the Excel power user who is not yet a programmer to automate tasks to accomplish more in less time.

Course Objectives

- Use Excel's macro recorder and Visual Basic Editor to create macros.
- Control macro execution using VBA programming fundamentals.
- Organize the macro using sub procedures and modules.
- Perform custom calculations using functions.
- Create, show and format forms to get input from the macro user.
- Use events to determine when macros run.

Course Details

- Length: 14 hours
- Format: Classroom
- Prerequisites: Excel: Level 2 or equivalent

The above prerequisites are considered to be the basic skills and knowledge needed prior to taking this class. Instructors will assume your readiness for the class materials and will NOT use class time to discuss prerequisite materials.



Course Contents

Formula Tricks and Techniques

- Differentiating Between Absolute and Relative References in Formulas
- Understanding and using names
- Introducing array formulas
- Working with dates and times

Introducing Visual Basic for Applications

- Introducing VBA — the programming language built into Excel
- Discovering how VBA differs from traditional spreadsheet macro languages and the Visual Basic language
- Using the Visual Basic Editor (VBE)
- Working in the Code windows in the VBE and customizing the VBE environment
- Using Excel's macro recorder
- Getting an overview of objects, collections, properties, and methods
- Reviewing a case study of the Comment object
- Looking at specific information and examples of working with Range objects
- Accessing a lot of information about Excel objects, properties, and methods

VBA Programming Fundamentals

- Understanding VBA language elements, including variables, data types, constants, and arrays
- Using VBA built-in functions
- Manipulating objects and collections
- Controlling the execution of your procedures



Course Contents, continued

Working with VBA Sub Procedures

- Declaring and creating VBA Sub procedures
- Executing procedures
- Passing arguments to a procedure
- Using error-handling techniques
- An example of developing a useful procedure

Creating Function Procedures

- Understanding the difference between Sub procedures and Function procedures
- Creating custom functions
- Looking at Function procedures and function arguments
- Creating a function that emulates Excel's SUM function
- Using functions that enable you to work with pre-1900 dates in your worksheets
- Debugging functions, dealing with the Insert Function dialog box, and using add-ins to store custom functions

VBA Programming Examples and Techniques

- Using VBA to work with ranges
- Using VBA to work with workbooks and sheets
- Creating custom functions for use in your VBA procedures and in worksheet formulas
- Trying miscellaneous VBA tricks and techniques

Custom Dialog Box Alternatives

- Using an input box to get user input
- Using a message box to display messages or get a simple response
- Selecting a file from a dialog box
- Selecting a directory
- Displaying Excel's built-in dialog boxes



Course Contents, continued

Introducing User Forms

- Creating, showing, and unloading UserForms
- Exploring the UserForm controls available to you
- Setting the properties of UserForm controls
- Controlling UserForms with VBA procedures
- Creating a UserForm
- Introducing the types of events relevant to UserForms and controls
- Customizing your control Toolbox
- Going over a handy checklist for creating UserForms