

MS Excel Introduction to Visual Basic for Applications (VBA)

All versions

Description

An introduction to VBA using Excel. Macros are automated and edited using Visual Basic. Programming structures and programming principles are introduced at a beginners' level.

Duration

2 days

Target Group

This course is intended for a person who knows Excel to an advanced level. It is designed for people who work with large quantities of data and who need to be able to automate that process. People will be able to edit macros with confidence.

Course Content

Module 1: Getting started

- Introducing Visual Basic for Applications
- Recording a macro
- Running a macro
- Editing a macro in the Visual Basic editor
- Security issues when creating workbooks with macros
- Personal Macro Workbook
- Understanding Relative and Absolute Macros
- Assigning Macros to Toolbars or objects or command buttons
- Understanding the development environment
- Using Visual Basic help
- Closing the visual basic editor

Module 2: Working with Procedures & Functions

- Understanding modules
- 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

Module 3: Understanding Objects

- Understanding objects
- Navigating the Excel object hierarchy
- Understanding collections
- Using the object browser
- Working with properties
- Using the with statements
- Working with methods
- Creating an event procedure

Module 4: 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

Module 5: Controlling program execution

- Understanding control of flow structures
- Working with Boolean expressions
- Using the if...end if decision structure

- Using the do...loop structure
- Using the for...next structure
- Using the for each ... next structure
- Guidelines for use of control-of-flow structure

Module 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
- 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

Module 7: Debugging code

- Understanding errors
- Using debugging tools
- Setting breakpoints
- Stepping through code
- Using break mode during run mode
- Determining the value of expressions

Module 8: Handling errors

- Understanding error handling
- Understanding VBA's error trapping options
- Trapping errors with the error statement
- Understanding the error object
- Writing on error handling routine
- Working with inline error handling