

Microsoft Excel 2007 VBA Programming

Course Aims

This course introduces the student in automating and customizing the different processes in Excel through VBA coding. It uses the various Excel Objects Models to manipulate and control the applications, worksheets and ranges. Furthermore, the students will be exposed to the different programming constructs and techniques in handling data from the worksheet.

The trainee will also learn how to use Events in Excel, VBA Arrays, and creating useful data forms.

Pre-requisites

Complete the Microsoft Excel Advanced Course.

Level	Duration	Time
Advanced	3 Days / 22.5 Hours	9:00 am to 5:30 pm

Module 1. Introduction To Macros

- Define a Macro Title
- Define the relationship between Macros and VBA
- Open Workbooks containing Macros
- Set Macros security level
- Enable and disable Macros
- Record and store a Macro
- Specify Macro location
- Run a Macro
- Macro Dialog Box
- Shortcut Key Dialog
- Customizing Menu Bar and Toolbar
- Forms Control
- Visual Basic Editor

Module 2. VBA Environment

- Familiarize with VBA Environment
- Using the Edit Toolbar
- Adding Comments
- Use the Immediate Window
- Use the Debug.Print
- Use ? statement

Module 3. Working With Objects

- Instructions, Module and Procedures
- Object, Properties and Methods
- Syntax Rules
- The Object Browser
- MsgBox function
- InputBox function

Module 4. Variables And Data Types

- Define Variables
- Identify built-in Data Types
- Create Variables
- Declare Variables
- Force Declaration of Variables
- Set Option Explicit
- User-defined constants
- Using constants in Variables

Module 5. Operators and Decision Making

- Relational Operators
- Logical Operators
- Using If statements
- Using Elself statement
- Using Select Case statement

Module 6. Loops

- Write repetitive or looping statements
- Do Loop, Do While, Do Until, While Wend
- For Next loop
- Exiting Loop
- Nested Loop

Module 7. Subroutines and Functions

- Overview
- Subroutine
- Function
- Passing arguments
- Passing Optional arguments

Module 8. Arrays

- Introduction to Arrays
- Declare Array
- Use Option Base
- Declare Dynamic Arrays
- Using 2-D Arrays
- Use Array functions
- LBound and UBound functions
- Erase function
- Array Function
- Use ParamArray

Module 9. Custom Forms Dialogs and Events

- DialogBoxes in Excel
- Creating UserForms
- Understanding Form and Events Control
- Event and Event Procedures
- Define Event Procedures in Form
- Workbook Events
- Worksheet Events

Module 10. Debugging and Error Handling

- Testing Procedure
- Stopping a Procedure
- Stepping through a VBA Procedure
- Insert Breakpoint
- Stop statement
- Add Watch expression
- Debug Windows
- Bookmarks
- On Error statement (Trapping Errors)