

# Microsoft Office - VBA Essentials

Learn via: **Classroom**

Duration: **2 Day**

<https://bilginc.com/en/training/microsoft-office-vba-essentials-814-training/>

## Overview

This course is designed to give proficiency in the Visual Basic Editor (VBE), predominantly making use of Excel objects, basic VBA programming, event handling, control structures, and debugging tools.

The course is suitable for users of Office 2007, 2010, 2013, 2016 and 2019 (365) due to the minimal differences between versions. Note that this course will normally be delivered on PCs with Office 2016 installed.

## Prerequisites

- Navigate, edit and manage Excel workbooks
- Format worksheets and workbooks
- Understand the difference between absolute and relative references
- Understand the basics of Excel formulas and functions, e.g. Sum, text functions
- Understand the concepts of a Macro and its capabilities

Dual monitor setup is required for when attending this course via the QA Attend from Anywhere delivery method.

## What You Will Learn

- Record and edit a Macro
- Use different techniques in order to run any macros available such as keyboard commands, the use of the Quick Access Toolbars or Buttons
- Use VBA and examine the Visual Basic Editor; change the properties of an object; add a module to a project; write the code for a procedure and then run it; and use the Object Browser to search procedures
- Manipulate data by declaring variables of different data types; combine data by using expressions; use functions to accept input and display output; and declare variables and procedures with the appropriate scope
- Use decision structures to create procedures that make decisions; and use loop structures to perform repetitive tasks
- Create an error handling routine in case things go wrong with VBA code

## Outline

### **Module 1: Getting started**

- Introducing Visual Basic for Applications
- Recording a Macro
- Running a Macro
- Absolute or Relative Cell Referencing
- Saving and Opening Files with Macros
- Adding Macros to Keyboard Shortcuts, Quick Access Toolbar, and Buttons
- Editing a Macro in the Visual Basic Editor
- Understanding the Development Environment
- Customising the Editor
- Tips for General Typing in VBA
- Using Visual Basic Help

### **Module 2: Working with Procedures**

- Program Design
- Understanding Modules
- Naming Rules

- Creating a Module
- Understanding Procedures
- Programming Macro Concepts
- Creating a Subroutine
- Creating a Function
- Understanding Arguments
- Exiting Procedures
- Calling Procedures

### **Module 3: Understanding Objects, Properties, Methods, and Events**

- Understanding Objects Properties, Methods, and Events
- Navigating the Object Hierarchy
- Understanding Collections
- Accessing a Member of a Collection
- Understanding Hierarchy
- Using the Object Browser
- Using the With Statement
- Working with Properties
- Working with Methods
- Creating an Event Procedure
- Reserved Macro Names

### **Module 4: Using Expressions, Variables and Intrinsic Functions**

- Understanding Expressions and Statements
- Declaring Variables
- Understanding Data Types
- Determining the Value of Variables
- Working with Variable Scope
- Using Built-in VBA Functions
- Understanding Constants
- Using Message Boxes
- Controlling the Answer to a Message Box
- Using Input Boxes
- Declaring and Using Object Variables

### **Module 5: Controlling Program Execution**

- Understanding Control-of-Flow Structures
- Using the If...End If Decision Structures
- Nested If Statements
- Using the Select Case ... End Select Structure
- Using the Do ... Loop Structure
- Using the For ... Next Structure
- Using the For Each ... Next Structure
- Guidelines for Use of Control-of-Flow Structures

### **Module 6: Working with Forms and Controls**

- Understanding UserForms
- Creating a Form
- Displaying and Removing a Form
- Aligning and Sizing Controls
- Using the Toolbox
- Working with a Form's Properties, Methods, and Events
- Working with Form and Control Properties, Methods and Event
- Setting the Tab Order
- Populating a Control

### **Module 7: Debugging and Handling Errors**

- Understanding Errors
- Using Debugging Tools
- Setting Breakpoints and Using Break Mode

- Stepping Through Code
- Trapping Errors with the On Error Statement
- Understanding the Err Object
- Working with Inline Error Handling
- Writing an Error-Handling Routine