

## Microsoft® Excel: VBA Programming

**Course Length: One Day**

Prerequisites: Intro to PC's or basic computer knowledge, Excel Levels 1, 2, 3 and PowerUser.

### **Course Description**

This course is designed to give proficiency to create procedures that run in response to specific events, create user forms to accept or display data, validate the data entry in user forms, and debug and handle errors in code.

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#### **Unit 1: Getting started**

Topic A: Spreadsheet terminology  
Topic B: Exploring the Excel window

#### **Unit 1: Visual Basic Editor**

Topic A: Visual Basic for Applications  
Topic B: Object Programming  
Topic C: The Object Browser

#### **Unit 2: Programming basics**

Topic A: Data  
Topic B: Scope of variables  
Topic C: Scope of procedures

#### **Unit 3: Control structures**

Topic A: Decision structures  
Topic B: Loop structures

#### **Unit 4: Custom dialog boxes**

Topic A: User forms  
Topic B: Events

#### **Unit 5: Debugging and error-handling**

Topic A: Errors  
Topic B: Debugging  
Topic C: Error-handling

### **Course Objectives**

At the end of this course, students will be able to:

- Use the Visual Basic for Applications (VBA) terminology and start Visual Basic Editor (VBE), work with object properties and methods and attach code to events and buttons, and use the Object Browser to get information about objects.
- Use the variables of relevant data types, manipulate data by using expressions, get input from the user, declare and use variables of correct scope, declare and use procedures of correct scope, create Sub and Function procedures, and call one procedure from another.
- Use decision structures to create procedures that execute code based on specific conditions and use loop structures to execute specific code repeatedly.
- Add a user form to your project and add controls to the user form, handle events attached to controls in a user form and validate the data entry in the controls.