



BUILDING TRAINING SOLUTIONS
FOR THE IT WORLD

Microsoft Office Excel 2007: Programming with VBA

Number of Days: 3

Format: Instructor-Led

Class Code: EX07-VBA

Recommended Course Sequence
Excel Lvl 1,2 and 3

Knowledge of prerequisites
noted below.

*Course content is subject to change
without notice.*

Course Description:

In this course, you'll learn how to create Excel applications using the VBA programming language. Over the course of three days, you'll be taught the basics of the programming language VBA, and how to utilize it to automate your Excel applications. From recording macros to writing procedures to creating custom user forms, you will learn how to save time and money by using Excel as an in-house application development platform.

Target Student:

This course is intended for advanced Excel users that desire to further customize their Excel applications beyond writing macros by learning VBA.

Prerequisites:

Before attending this course, students should meet the following prerequisites:

- At least 1 year of Excel experience

Preferably, students will have:

- Taken at least Excel Introduction 2007 and Excel Intermediate 2007
- Recorded a macro
- A desire to learn how to program in VBA

Delivery Method:

Instructor led, group-paced, classroom-delivery learning model with structured hands-on activities.

Course Outline

Lesson 1: Getting Started

- Introducing Visual Basic for Applications
- Displaying the Developer Tab in the Ribbon
- Recording a Macro
- Saving a Macro-Enabled Workbook
- Running a Macro
- Editing a Macro in the Visual Basic Editor
- Understanding the Development Environment
- Using Visual Basic Help
- Closing the Visual Basic Editor
- Understanding Macro Security

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Lesson 2: Working with Procedures and Functions
<ul style="list-style-type: none">■ Understanding Modules■ Creating a Standard Module■ 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
Lesson 3: Understanding Objects
<ul style="list-style-type: none">■ Understanding Objects■ Navigating the Excel Object Hierarchy■ Understanding Collections■ Using the Object Browser■ Working with Properties■ Using the With Statement■ Working with Methods■ Creating an Event Procedure
Lesson 4: Using Expressions, Variables, and Intrinsic Functions
<ul style="list-style-type: none">■ 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
Lesson 5: Controlling Program Execution
<ul style="list-style-type: none">■ Understanding Control-of-Flow Structures■ Working with Boolean Expressions■ Using the If...End If Decision Structures■ Using the Select Case...End Select Structure■ Using the Do...Loop Structure■ Using the For...To...Next Structure■ Using the For Each...Next Structure■ Guidelines for use of Control-of-Flow Structures

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Lesson 6: Working with Forms and Controls
<ul style="list-style-type: none">■ 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
Lesson 7: Working with the PivotTable Object
<ul style="list-style-type: none">■ Understanding PivotTables■ Creating a PivotTable Using Worksheet Data■ Working with the PivotTable Objects■ Working with the PivotFields Collection■ Assigning a Macro to the Quick Access Toolbar
Lesson 8: Debugging Code
<ul style="list-style-type: none">■ Understanding Errors■ Using Debugging Tools■ Setting Breakpoints■ Stepping through Code■ Using Break Mode during Run mode■ Determining the Value of Expressions
Lesson 9: Handling Errors
<ul style="list-style-type: none">■ Understanding Error Handling■ Understanding VBA's Error Trapping Options■ Trapping Errors with the On Error Statement■ Understanding the Err Object■ Writing an Error-Handling Routine■ Working with Inline Error Handling