



# Access VBA Programming

Course ACCVBA    2 Days    Instructor-led, Hands-on

## Course Description

During this two-day instructor led course, students will learn about the Visual Basic for Applications language as well as the Access classes and objects needed to create VBA scripts to automate Access. Participants create procedures and functions using the VBA language and Access objects. Debugging and error handling techniques are reviewed.

## Course Objectives

Upon successful completion of this course, students will be able to

- Work with procedures and functions
- Understand objects
- Use expressions, variable and intrinsic functions
- Control program execution
- Work with recordsets
- Debug code
- Handle errors

## Prerequisites

Appropriate introductory and advanced courses plus several weeks of practice. No programming experience is required.

## Course Outline

### Module 1: Getting Started

- Introduction to Programming in Access
- Why Program in Access?
- Understanding the Development Environment
- Using Visual Basic Help

### Module 2: Working with Procedures and Functions

- 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

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- Naming Procedures
- Organizing Code and Procedures
- Working with the Code Editor

### **Module 3: Understanding Objects**

- Understanding Classes and Objects
- Navigating the Access Object Hierarchy
- Understanding Collections
- Using the Object Browser
- Working with the Application Object
- Understanding the Form Object
- Working with Properties
- Using the With Statement
- Working with Methods
- Understanding the DoCmd Object
- Working with Events
- Understanding the Order of Events

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

- Understanding Expressions and Statements
- Declaring Variables
- Understanding Data Types
- Working with Variable Scope
- Working with Variable Lifetime
- Considering Variable Scope and Lifetime Together
- Using Intrinsic Functions
- Understanding Constants
- Using Intrinsic Constants
- Using Message Boxes
- Using Input Boxes

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

- 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 For...Next Structure
- Using the For Each...Next Structure
- Using the Do...Loop Structure
- Guidelines for use of Branching Structures



## **Module 6: Working with Recordsets**

- Declaring and Creating Object Variables
- Working with the DAO Recordset Object

## **Module 7: Debugging Code**

- Understanding Errors
- Using Debugging Tools
- Setting Breakpoints
- Setting Break Expressions
- Using Break Mode during Run Mode
- Stepping through Code
- Determining the Value of Expressions

## **Module 8: Handling Errors**

- 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