

# **Access 2016 VBA Programming**

Course ID #: 7000-448-ZZ-Z

Hours: 21

# **Course Content**

# **Course Description:**

This course is designed for experienced Access 2016 users who want to learn how to program in Access 2016. Specific topics include: Understanding the Development Environment, Working with Procedures and Functions, Understanding Objects, Using Expressions, Variables, and Intrinsic Functions, Controlling Program Execution, Working with Record sets, Debugging Code and Handling Errors.

## **Prerequisites:**

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

## **Topics:**

### **Getting Started**

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

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

### **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



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# 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

### **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

#### **Working with Recordsets**

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

### **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

### **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

# Appendix - Working with the ADO Recordset Object