



Excel 2019 VBA Programming

Course ID: 7000-417-ZZ-Z

Hours: 7

Course Content

Course Description:

VBA (Visual Basic for Applications) enables you to enhance and extend the capabilities of Microsoft® Excel® and other applications in the Microsoft® Office application suite. You can use VBA to perform tasks that would be difficult or impossible to do using only worksheet functions, and you can automate a wide range of tasks so they can be performed faster, more consistently, and with less effort than performing them manually. This course will give you a good foundation for understanding, creating, and using VBA in your own Excel workbooks. You will learn how to use the macro recorder effectively, as well as how to write your own VBA code from scratch. You will use tools built into Excel to explore and learn VBA's capabilities and to optimize and debug your code.

At Course Completion:

After completing this course, student will be able to:

- Identify general components of VBA and their appropriate use in solving business solutions.
- Record VBA macros to automate repetitive tasks.
- Write VBA code to create VBA subroutines and functions.
- Use various programming elements to solve problems through code, including variables, objects, conditional statements, and loops.
- Eliminate, avoid, or handle errors in VBA code, and optimize its performance.

Prerequisites:

To ensure your success in this course, you should be an experienced Excel user who is comfortable creating and working with Excel workbooks, including tasks such as entering worksheet formulas, using absolute and relative addressing, formatting cells, and creating pivot tables and charts.

Target Student:

This course is primarily designed for students who want to gain the skills necessary to use VBA to automate tasks in Excel such as collecting data from external sources, cleaning, and manipulating data. The target student may also want to learn how to create custom worksheet functions to streamline worksheet formulas and make complex worksheets easier to support, maintain, and understand.



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Topics:

Lesson 1: Using VBA to Solve Business Problems

- Topic A: Use Macros to Automate Tasks in Excel
- Topic B: Identify Components of Macro-Enabled Workbooks
- Topic C: Configure the Excel VBA Environment

Lesson 2: Recording a Macro

- Topic A: Use the Macro Recorder to Create a VBA Macro
- Topic B: Record a Macro with Relative Addressing
- Topic C: Delete Macros and Modules
- Topic D: Identify Strategies for Using the Macro Recorder

Lesson 3: Writing VBA Code Directly

- Topic A: Write VBA Code
- Topic B: Discover Objects You Can Use
- Topic C: Create a Custom Function

Lesson 4: Solving Problems through Code

- Topic A: Make Decisions in Code
- Topic B: Work with Variables
- Topic C: Perform Repetitive Tasks

Lesson 5: Improving Your VBA Code

- Topic A: Debug VBA Errors
- Topic B: Deal with Errors
- Topic C: Improve Macro Performance

Appendix A: Controlling How and When Macros Run