

# Microsoft Excel 2019 – Level 3 – VBA Macros: Instructor Setup Guide

- General Hardware Requirements for Office Professional Plus 2019
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## 1.1 General Hardware Requirements for Office Professional Plus 2019

### ■ Workstation

| <b>COMPONENT</b>                     | <b>DESCRIPTION</b>   |
|--------------------------------------|--|
| <b>Operating system</b>              | Windows 10, Windows Server 2019  |
| <b>Processor</b>                     | 1.6 GHz or faster, 2-core processor. 2.0 GHz or greater recommended for Skype for Business.  |
| <b>Disk space</b>                    | 4.0 GB of available disk space   |
| <b>Memory</b>                        | 4 GB RAM; 2 GB RAM (32-bit)  |
| <b>Display and Graphics Hardware</b> | 1280 x 768 screen resolution.<br>Graphics hardware acceleration requires DirectX 9 or later, with WDDM 2.0 or higher for Windows 10 (or WDDM 1.3 or higher for Windows 10 Fall Creators Update).<br>Professional Plus: Skype for Business requires DirectX 9 or later, 128 MB graphics memory, and 32 bits per pixel capable format. |

## 1.2 Software Setup Notes

### ■ Workstation

This course was created using Windows 10 Enterprise as the operating system, and a default installation of Office Professional Plus 2019. Other operating systems described above may be used and should not impact the flow of the course.

The workstation should be configured with a printer driver.

## 1.3 Classroom Data

Run the class data archive **S193Ven\_data.exe** for this course to install the class data to the **C:\S193Ven\_data** folder. The table below indicates the classroom data files that are included in the archive, as well as the section in which the file is first opened for use.

| <b>DATA FILE</b>  | <b>FILE TYPE</b> | <b>USED IN</b>  |
|-------------------|------------------|---|
| <b>JANEXP-1</b>   | <b>.xlsm</b>     | Section <b>1.3 Data Entry Concepts</b> , in the exercise <b>Creating a Named Range</b>  |
| <b>JANEXP-2</b>   | <b>.xlsm</b>     | Section <b>2.3 Executing Macros</b> , in the exercise <b>Recording Print Macros</b>   |
| <b>JANEXP-3</b>   | <b>.xlsm</b>     | Section <b>3.5 VBA Help Reference</b> , in the exercise <b>Editing Recorded Macros</b>  |
| <b>JANEXP-4</b>   | <b>.xlsm</b>     | Section <b>4.2 Designing User Forms</b> , in the exercise <b>Creating a Custom Dialog Box</b>                                     |
| <b>JANEXP-5</b>   | <b>.xlsm</b>     | Section <b>5.2 Code Security</b> , in the exercise <b>Changing the Macro Security Level</b>                                       |
| <b>JANEXP-6</b>   | <b>.xlsm</b>     | Section <b>6.2 Automating Data Entry</b> , in the exercise <b>Creating a New Record Routine</b>                                   |
| <b>JANEXP-7</b>   | <b>.xlsm</b>     | Section <b>7.5 Flow Control</b> , in the exercise <b>Conditional Branching</b>  |
| <b>JANEXP-8</b>   | <b>.xlsm</b>     | Section <b>8.3 Logical Errors</b> , in the exercise <b>Debugging VBA Code</b>   |
| <b>JANEXP-9</b>   | <b>.xlsm</b>     | Section <b>9.1 External References</b> , in the exercise <b>Working with ADO References</b>                                       |
| <b>Accounting</b> | <b>.accdb</b>    | Section <b>9.4 Retrieving Records from a Database</b> , in the exercise <b>Connecting to a Data Source and Retrieving Records</b> |

The **C:\S193Ven\_data\completed files** folder contains completed versions of the data files by chapter.

The **C:\S193Ven\_data** folder may be deleted after the class.

## 1.4 Courseware Timing

The following table lists an estimated amount of time to be allocated per chapter and section based 14-hours (2-day) training session. Time required for pre-class introductions or greetings has not been included. Please note that these are estimates only and that other variables may dictate the amount of time you spend on each chapter and section.

| <b>CHAPTER/SECTION</b>                        | <b>ESTIMATED TIME</b> |
|---|-----------------------|
| <b>Building Solutions</b>                     | <b>85 min</b>         |
| 1.1 Course Overview                           | 10 min                |
| 1.2 Solution Concepts                         | 25 min                |
| 1.3 Data Entry Concepts                       | 20 min                |
| 1.4 Macro Concepts                            | 15 min                |
| 1.5 Programming Concepts                      | 15 min                |
| <b>Macro Basics</b>                           | <b>80 min</b>         |
| 2.1 Planning Macros                           | 20 min                |
| 2.2 Recording Macros                          | 20 min                |
| 2.3 Executing Macros                          | 20 min                |
| 2.4 Maintaining Macros                        | 20 min                |
| <b>VBA Programming Basics</b>                 | <b>95 min</b>         |
| 3.1 Understanding Objects                     | 15 min                |
| 3.2 Using the Visual Basic Editor             | 20 min                |
| 3.3 Understanding VBA Code                    | 20 min                |
| 3.4 Executing VBA Code                        | 15 min                |
| 3.5 VBA Help Reference                        | 25 min                |
| <b>VBA User Form Basics</b>                   | <b>70 min</b>         |
| 4.1 Planning User Forms                       | 30 min                |
| 4.2 Designing User Forms                      | 40 min                |
| <b>Deployment Basics</b>                      | <b>90 min</b>         |
| 5.1 Preparing for Deployment                  | 20 min                |
| 5.2 Code Security                             | 30 min                |
| 5.3 Adding Macros to the Quick Access Toolbar | 20 min                |
| 5.4 Modifying Quick Access Toolbar Buttons    | 20 min                |

| <b>CHAPTER/SECTION</b>                         | <b>ESTIMATED TIME</b> |
|--|-----------------------|
| <b>Customizing Macros</b>                      | <b>115 min</b>        |
| 6.1 Prompting for User Input                   | 25 min                |
| 6.2 Automating Data Entry                      | 35 min                |
| 6.3 Recording Absolute vs. Relative References | 30 min                |
| 6.4 Protecting VBA Source Code                 | 25 min                |
| <b>Enhancing VBA Code</b>                      | <b>110 min</b>        |
| 7.1 Writing Source Code                        | 20 min                |
| 7.2 Variables and Constants                    | 20 min                |
| 7.3 Writing Tips                               | 15 min                |
| 7.4 Logical Operators                          | 20 min                |
| 7.5 Flow Control                               | 35 min                |
| <b>Handling Errors</b>                         | <b>70 min</b>         |
| 8.1 Handling Errors                            | 15 min                |
| 8.2 Syntax Errors                              | 15 min                |
| 8.3 Logical Errors                             | 25 min                |
| 8.4 Run-Time Errors                            | 15 min                |
| <b>Accessing External Data</b>                 | <b>65 min</b>         |
| 9.1 External References                        | 20 min                |
| 9.2 ActiveX Data Objects Concepts              | 15 min                |
| 9.3 Connecting to a Database                   | 15 min                |
| 9.4 Retrieving Records from a Database         | 15 min                |
| <b>Excel Automation</b>                        | <b>60 min</b>         |
| 10.1 Automation Concepts                       | 15 min                |
| 10.2 Working with Object Models                | 15 min                |
| 10.3 Excel's Object Model                      | 15 min                |
| 10.4 Automating Excel with VBScript            | 15 min                |