



# Learn Excel Online

## Excel VBA Programming Outline

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### Lesson 1: Introduction To Macros

- Macros, The VB Editor, Debugging
- Record A Macro
- Lesson 1 Macro 1
- Run A Macro
- Show The Developer Tab
- Edit A Macro
- Introduction To Object Oriented Programming
- The Dot Operator
- The Application Object
- Debug Print
- Lesson 1 Macro 2 – Requires Debugging
- Debugging
- Debug A Recorded Macro
- The Reset Command
- Variable Concatenation
- Lesson 1 Macro 3 – Make A Pivot Table
- Create Macros Without Recording
- Anatomy Of A Program
- The Call Statement

### Lesson 2: Introduction To Variables

- Constants
- The Assignment Operator
- Variable Substitution
- Variable Concatenation
- The Range Object
- Select Versus Activate
- The Cells Object
- The Sheets Object
- Copy And Paste Methods
- Programming Control Structures
- For/Next Loop Syntax
- Create Macros Without Recording
- Comments
- For Loops Lesson 1

### Lesson 3: Loop and Decision Controls

- Scenarios
- Decision Control: If - Then - Else Statements
- Exercise: Write A Program To Parse Data
- Exercise: Write A Program To Concatenate Data

### Lesson 4: Improve Performance, Handle Errors, And Introduction to Functions

- With/End With Program Control Structures
- Handle Run Time Errors - Level I
- The Message Box
- InputDialog Function
- Dialogs And File Dialogs
- FileOpen Method A
- FileOpen Method B

### Lesson 5: Functions

- Write A Sum Function
- Functions And Recorded Macros
- Write A Vlookup To A Cell
- Vlookup In RAM
- Functions And Recorded Macros: Vlookup
- CountA
- Other Functions: IsEmpty()
- User Defined Functions
- Save Your Macros As An Excel Add-In
- UDF Exercise
- The Instr Function
- ]Add A Break Point
- Exercise: Loop And Sum
- Exercise: Loop And SumIfs

### Lesson 6: Workbook Events

- The Intersection Operator
- Exercise: Code The Before Double Click Event
- Anatomy Of A Program
- The Call Statement
- Exercise: Call Subroutines And Pass Local Variables
- Select Case Control Structure
- Global Variables
- Sheet Events – Change Event
- Exercise: The Sheet Change Event



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## Lesson 7: Object Variables, Array Variables, Indefinite Loops

- Object Variables
- Revisit Previous Programs As Object Oriented Array Variables
- Indefinite Loops: Do While And Do Until
- Simulate Goal Seek With A Do Loop
- Add A Watch
- While Wend Control Structures

## Lesson 8: Workbooks

- The .Open Method
- The FileSystem Object
- Create A New Folder With VBA
- Exercise: Loop Excel Files And Folders
- Handle Run Time Errors - Level II

## Lesson 9: Reconciliation

- Reconcile Data: Compare Two Workbooks
- Handle Errors Across Called Subroutines

## Lesson 10: User Forms – Part 1

## Lesson 11: User Forms – Part 2

## Lesson 12: Charts

## Lesson 13: PivotTables - Part 1

## Lesson 14: PivotTables - Part II

## Lesson 15 VBA Communicates With Other Programs

## Lesson 16: Binding, Automate Word and Outlook 427

## Lesson 17: Automate PowerPoint and Access

## Lesson 18: Class Modules

## Lesson 19: Macro Security Settings

## Lesson 20: Customize The Ribbon

## Appendix A: Solutions To Assignments