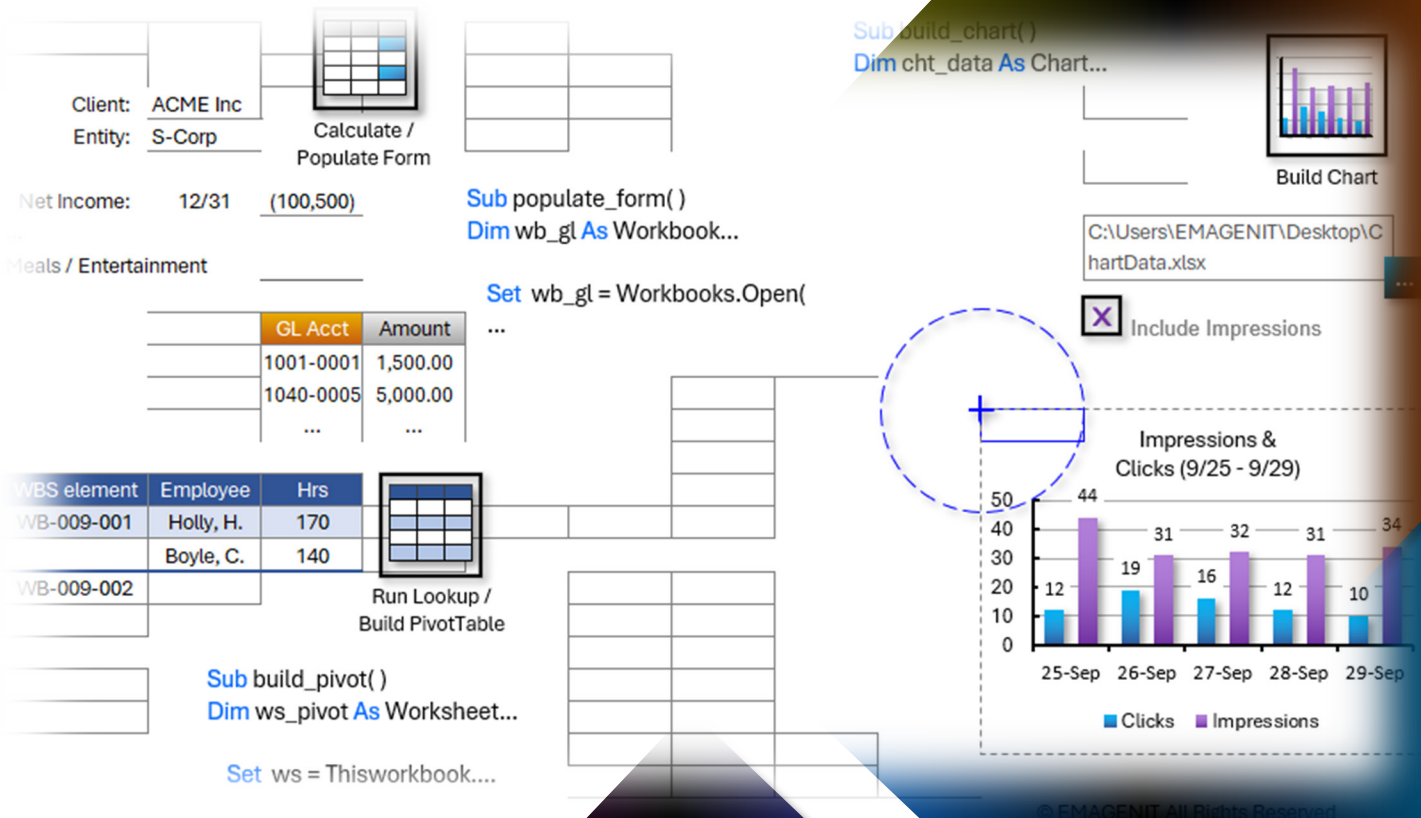


# Beginning Excel VBA

## for Business and Industry



Client: ACME Inc  
Entity: S-Corp

Calculate / Populate Form

Net Income: 12/31 (100,500)

Meals / Entertainment

GL Acct	Amount
1001-0001	1,500.00
1040-0005	5,000.00
...	...

WBS element	Employee	Hrs
WB-009-001	Holly, H.	170
	Boyle, C.	140
WB-009-002		

Run Lookup / Build PivotTable

```

Sub build_chart()
Dim cht_data As Chart...

Sub populate_form()
Dim wb_gl As Workbook...

Set wb_gl = Workbooks.Open(
...

Sub build_pivot()
Dim ws_pivot As Worksheet...

Set ws = Thisworkbook...

```

Build Chart

C:\Users\EMAGENIT\Desktop\ChartData.xlsx

Include Impressions

Impressions & Clicks (9/25 - 9/29)

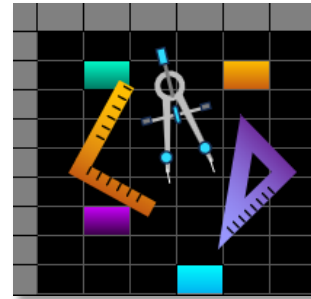
Date	Clicks	Impressions
25-Sep	12	44
26-Sep	19	31
27-Sep	16	32
28-Sep	12	31
29-Sep	10	34

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**Automate your time-consuming Excel tasks with the click of a button.** Learn to build Excel VBA tools that automate your repetitive formatting, calculation, data, and reporting tasks in Excel.

# How our class can help you.

**Our 2-day class** shows you hands-on the critical Excel VBA skills needed to start making automated macro tools right away. It covers the essential Excel VBA topics you need to know like using the VBA Editor and modules; code debugging; typing the Excel VBA language; and program logic.

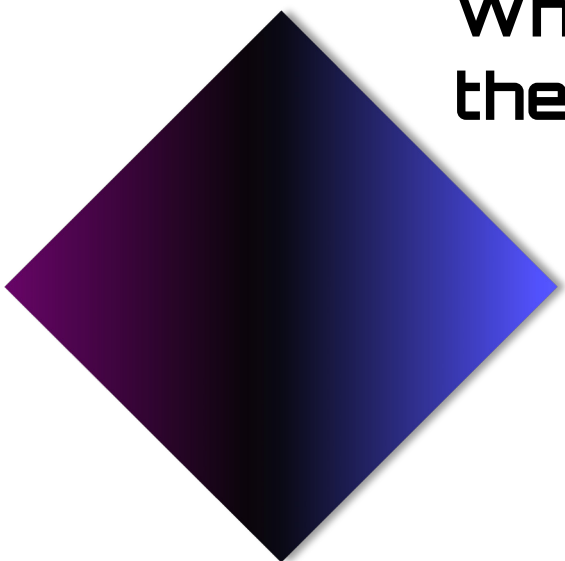


[Class Examples >](#)

In addition, it covers how to use VBA to command key Excel elements like workbooks, worksheets, ranges, formulas, charts, and Excel's data tools. Also discussed is how to use Excel VBA to perform key tasks like formatting tables; automating calculations; performing table lookups; Creating PivotTables; and analyzing data.

## Who should attend the class?

Business, government, industry, military, engineering, science, techs... Class examples will be determined by those in attendance.



# Minimum Excel skills needed for the class.

Select this Excel training if you or your group have:

- Just used the Macro Recorder before
- Not programmed in over a year or never
- Programmed but have not used objects before
- Used Microsoft Excel and know its operational capabilities and its data tools
- Formatted worksheets and built charts
- Built basic worksheet formulas (=A1+A2)
- Used worksheet functions like SUM, MATCH, VLOOKUP, SUMIFS...



## How we run the class.

We focus our training on what our customers need. When training begins, we analyze those needs and shift our outline appropriately. We will stress or add topics that our customers want.

## Class formats and signup.

**In-Person, Virtually, and Onsite.** Our live hands-on classes can be attended virtually or in-person. Please visit our public signup page for [class times and pricing >](#). Contact EMAGENIT directly at 805.498.7162 for more information about our onsites.

# Key Excel topics covered in class.

- Review of the Excel VBA language, procedures, VBA Editor, debugging, and modules
- How to use VBA to calculate various worksheet problems and forms
- How to track ranges and use functions in VBA to calculate and lookup worksheet data
- How to create, modify, and delete worksheet formulas with Excel VBA
- Using Excel VBA to format worksheet data and insert, delete, move.... rows, columns, and cells
- Controlling, tracking, and scanning workbooks and worksheets with Excel VBA
- Creating user interfaces to run your Excel VBA tools
- Using loops and logic to calculate and lookup worksheet data
- Using Excel VBA to run Excel's data tools like PivotTables, Sort, AutoFilter...
- Using Excel VBA to fill common report tables
- Creating and formatting charts using Excel VBA
- Designing custom worksheet functions (UDFs) to replace complex calculations

# Detailed class syllabus.

## Day-1

### Excel VBA Language, VBA Editor, and Module Review

\* This section discussed throughout the class when needed

- Review of VBA Editor, Modules, and how to debug procedures
- How to use Sub, Function, and property procedures in VBA
- Complete Review of the Excel VBA language and syntax
- How to translate your Excel tasks into a VBA procedure
- What are objects, properties, and methods and how to use them in your code?
- How to create logic in your code using the < , > , <= And, Or, Not... operators

### Tracking Ranges, Using Functions, and Controlling Formulas in VBA

- How to track ranges and cells in your macro code using Range, Cells, Rows, Columns...
- How to run worksheet and VBA functions in Excel VBA
- How to find table start positions, headers, and output rows using Find, MATCH, COUNTA...
- Summing, counting... data in your code using functions like MAX, SUMIFS, COUNTIFS...
- How to output calculated values to cells around a table
- How to use VBA to create, manage, and autofill formulas on the worksheet

## Calculating Problems and Forms with Excel VBA

- Using Range, Cells, Offset, Find... to locate worksheet input and output cells
- How to layout problems and forms on the worksheet so VBA can read them
- Using cell names to easily track worksheet cells in your VBA code
- How to read and write to worksheet cells using Range, Cells, Offset, Value...
- How to perform calculations (i.e., expressions) in VBA using +, -, /, \*, (), ...
- Using logic in your macro code to determine what calculations to perform
- Using a loop to read your form, lookup table data, and return it

## Controlling and Scanning Workbooks and Worksheets for Data

- Why store data in separate workbooks from your macro code workbook?
- Using the Set statement in Excel VBA to track workbooks and worksheets
- How to use Open, Close, Add, Save, SaveAs... in your code to control a workbook
- How to use Add, Delete, Move, Name... in your code to control a worksheet
- Scanning worksheets in open workbooks for data using loops, logic, and functions

## Controlling Text Data and Text Files in Your VBA Code

- Performing common text operations in your code using VBA and functions
- Using loops, logic, concatenation, and functions to clean / parse worksheet text
- Using Text Wizard and Text to Columns in VBA to process worksheet text
- How to open, write to, read, and close text files with VBA
- The basics of outputting text file data to the worksheet for analysis

# Formatting Worksheet Tables and Copying / Pasting Data with VBA

- Using macros to copy and paste ranges, cells, rows, columns, entire worksheets...
- How to insert, delete, move...worksheet cells, rows, and columns with VBA
- Using VBA to apply number formats, fonts, cell colors, alignments... to cells and ranges
- Isolating different worksheet table parts and formatting them with Excel VBA

## Day-2

### Creating User Interfaces to Control Your VBA Macros

- Arranging Data Validation, Conditional Formatting, shapes, and cells to create worksheet UIs
- How to create a button from a drawing shape or picture to run a VBA procedure
- How to create a file picker in your code to select which data file to process
- Using macros to control Data Validation logic, formulas, limits, and message boxes
- Alerting users and answering questions in your code using VBA message boxes
- Using Excel VBA to control Conditional Formatting and Data Validation

### Automating Excel's Data Tools to Create Reports

- How to automate Sort, Autofilter, Text Wizard, Remove Duplicates... to rapidly process data
- Using VBA to copy and paste filtered table data to a new report workbook / worksheet
- Using VBA and worksheet functions to calculate filtered data on report worksheets

- How to use Record Macro to quickly generate PivotTable and Excel table code

## Using VBA to Calculate, Lookup, and Fill Worksheet Data

- Using loops and functions to calculate worksheet data rows and columns
- How to use loops and logic to automatically delete table rows and columns
- Using VBA to color data that is above or below a limit, value matching...
- Parsing and cleaning text data in VBA using functions like Mid, Instr, CLEAN, TRIM...
- Using loops to lookup table data and output it to worksheet rows and columns
- Using Excel VBA to read raw data and fill common worksheet tables or forms

## Using Excel VBA to Create and Format Excel Charts

- How to use Excel VBA to create, format, and place Column, Line, Doughnut... charts
- Updating a pre-built chart's source data with Excel VBA
- Using macros to automatically add and delete chart elements like labels, gridlines...
- Using macros to color data points in a chart based on logic
- How to apply a custom chart template to a chart with VBA
- Combining VBA, charts, shapes, worksheets, and ranges to make reports

## Creating Custom Worksheet Functions in VBA

- How custom worksheet functions (UDFs) can perform tasks that worksheet formulas cannot
- Using a single UDF instead of creating the same formula over and over again on the worksheet
- General VBA design rules for UDFs



- Designing UDF's that can accept cells, ranges, values, and arrays as arguments
- Using loops, logic, and functions to look up and calculate values inside a UDF
- Returning data back from UDFs to worksheet formulas