

# MICROSOFT EXCEL – FORMULAS AND FUNCTIONS

## 1 DAY

Microsoft Excel is a spreadsheet program included in the Microsoft Office suite of applications. This module concentrates on formulas. It begins with the creation of basic formulas and quickly moves to more advanced functions, covering the eight categories of the Function Library.

## PREREQUISITE

Participants are at an intermediate level and have a working knowledge of developing basic functions in Excel. A strong interest to improve one's understanding of formulas and to learn more complex functions.

## COURSE CONTENT

---

### TIPS AND TRICKS

- Valuable and helpful shortcuts to move around Excel much more efficiently

---

### SIMPLE FORMULA

- How to type formulas in Excel

---

### INTRODUCTION TO ARRAY FORMULAS

- Create an Array formula
- Using embedded Excel Array formulas

---

### RELATIVE AND ABSOLUTE REFERENCES

- Deciding which cell reference is needed when copying a formula

---

### COMPLEX FORMULA

- Appreciating the order of operations
- How to read and understand formulas, its simplicity and complexity.

---

### FUNCTIONS

- What is a function?

---

## CREATING AND UNDERSTANDING FUNCTIONS

- Logical Functions
  - ✓ IF, NESTEDIF, IFS, NOT, OR, AND, XOR
  - ✓ Creating compound logical tests using AND, OR, NOT functions with IF statements
- Financial Functions
  - ✓ PMT, CUMIPMT, CUMPRINC
- Database Functions
  - ✓ DSUM, DAVERAGE, DCOUNT
- Text Functions
  - ✓ CONCATENATE or FLASHFILL
  - ✓ LEFT, MID, RIGHT, LEN, LOWER, UPPER, PROPER, TEXT, TRIM
- Date and Time
  - ✓ Smarter ways to calculate date and time: DATE, NETWORKDAYS, DATEDIF, NOW, TODAY
- Lookup and Reference Functions
  - ✓ VLOOKUP, VLOOKUP with ARRAY, VLOOKUP with MATCH
  - ✓ INDEX/MATCH combination might be your solution!
  - ✓ Or better yet... the new XLOOKUP could be the answer!
- Math and Trig Functions
  - ✓ ABS, SUMPRODUCT, RAND, RANDBETWEEN, ROUND, SUBTOTAL
  - ✓ Using SUMIF, SUMIFS, to tabulate data based on single/multiple criteria
- Statistical Functions
  - ✓ AVERAGE, AVERAGEA, AVERAGEIF, AVERAGEIFS
  - ✓ COUNT, COUNTA, COUNTBLANK, COUNTIF, COUNTIFS
  - ✓ FREQUENCY, MEDIAN, MODE, MIN, MAX
  - ✓ PERCENTILE, RANK
- Auditing Formulas
  - ✓ How to diagnose and fix errors
  - ✓ Tracing formula precedents, dependents, and evaluating
  - ✓ Correcting errors in formulas
- Information Functions
  - ✓ ISERROR, ISTEXT, ISEVEN, ISNA, ISODD