



## Course:

# Excel: Useful Excel Formulas and Functions

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**Course Number:** MOC50098

**Duration:** 2 Days

## Description

This in-depth, one-day instructor-led course provides students with the knowledge of using formulas in your daily work as well as the ability to expand your Microsoft Office Excel knowledge. The course will empower you to have answers to Excel questions at your fingertips. There are numerous new tips you will learn irrespective of the Excel version you or your students use. Be it Excel 2010 or 2013; you will be armed with the knowledge to provide a nifty solution. This course will serve as a refresher as well as a reference. The course is for users at all levels, from beginners through intermediate and advanced.

## Target Audience

Aimed at information workers who need to learn more in-depth techniques of using functions and formulas.

## Prerequisites

Before attending this course, students must be:

- An intermediate user of Microsoft Office Excel 2010 or 2013 for at least 1 year.

## Objectives

After completing this course, students will be able to:

- Enter formulas.
- Use the AutoSum button.
- Use the AutoSum list.
- Enter basic functions.
- Insert functions in formulas.
- Edit functions.
- Use the Auto Calculate feature.
- Use Range Borders to modify formulas.
- Check for formula errors.
- Use financial functions.
- Use logical functions.
- Use date functions.
- Format dates.
- Revise formulas.
- Use the VLOOKUP function.
- Use the HLOOKUP function.
- Use the IF function.
- Use nested IF functions.
- Display the Formula Auditing toolbar.
- Display/remove dependent arrows.



- Display/remove precedent arrows.
- Remove all tracer arrows.
- Use the Trace Error button.
- Trace cells causing errors.

## Outline

### Module 1: FORMULAS AND FUNCTIONS BASIC

- Introduction—Formula Basics
- Use Cell References
- Copy a Formula Without Changing Cell References
- Transpose a Formula
- Copy and Paste Values
- Perform a Quick Calculation
- Use Nesting Functions
- Lab 1: Review and Practice

### Module 2: STATISTICAL AND LOGICAL FUNCTIONS

- Use COUNTIF to Calculate Survey Results
- Use SUMIF to Add Data That Satisfy Conditions
- Use AVERAGEA to Include All Cases
- Use IF Function to Prevent Division by Zero
- Use ISERROR Function to Avoid Error Display
- Create Multiple Conditions Using Nested IF
- Lab 2: Review and Practice

### Module 3: LOOKUP and REFERENCE FORMULAS

- Use VLookup to Find Specific Data
- Use HLookup to Find Values in Rows
- Use Match & Index to Retrieve Data
- Lab 3: Review and Practice

### Module 4: TEXT FORMULAS

- Change Case of Text
- Join Text and Formatted Numbers
- Convert Imported Text Format into Numbers
- Break Imported Date Field into Individual Columns
- Extract a Name Field into Three Columns
- Lab 4: Review and Practice



## Module 5: DATE and TIME FORMULAS

- Add a Number to Current Date to Get New Dates
- Calculate a Period of Time Between Two Dates
- Perform Calculations with Time Fields
- Lab 5: Review and Practice

## Module 6: ARRAY AND DATABASE FUNCTIONS

- Use Array Formulas
- Calculate the Difference Between Maximum and Minimum Values in an Array
- Find Values in Lists
- Use Frequency Function to Count Responses
- Analyze Data in a Database
- Lab 6: Review and Practice

## Module 7: EFFICIENCY TIPS

- Reduce Formula Recalculation Time
- Enter Formulas Quickly by Shortening Sheet Names
- Select and Protect Cells Containing Formulas
- Reduce Data Entry Errors by Using Data Validation
- Display and Print Formula Syntax
- Use Auditing Tools to Check for Errors
- Check Data by Using Trace Precedents
- Use Comments to Annotate Your Worksheet
- Lab 7: Review and Practice