

## Advanced Ms. Excel



### Course Overview:

This module is a high-level certification program which presents candidates with the opportunity to bring their spreadsheet skills to an expert level. Completion of this module will enable candidates to master the more advanced functions of spreadsheet applications, enabling them to produce more sophisticated reports, and to perform complex mathematical and statistical calculations, thus saving time and improving productivity in the completion of tasks

### Course Objectives

1. Apply advanced formatting options such as conditional formatting and customized number formatting and handle worksheets.
2. Use functions such as those associated with logical, statistical, financial and mathematical operations
3. Create charts and apply advanced chart formatting features
4. Work with tables and lists to analyze, filter and sort data. Create and use scenarios
5. Validate and audit spreadsheet data
6. Enhance productivity by working with named cell ranges, macros and templates
7. Use linking, embedding and importing features to integrate data Collaborate on and review spreadsheets.
8. Apply spreadsheet security features

### Course Duration: 20 Hours

### Course Outline:

#### 1. Formatting

- a. Cell formatting
  - Applying Auto Formatting to a cell range.
  - Applying conditional formatting based on cell content.
  - Creating and Applying custom number formats.
- b. Worksheet formatting
  - Copying – Moving worksheets within a workbook.
  - Splitting a window.
  - Hiding rows, columns,worksheets.

#### 2. Functions and formulas

- a. Using the date and time functions (today, now, day, month, year, datevalue)
- b. Using the mathematical function 'rounddown', 'roundup'.
- c. Using the mathematical function 'sumif', 'countif'.

- d. Using the statistical function 'countblank', 'rank'
- e. Using the text function 'left', 'right', 'mid', 'trim', 'concatenate'
- f. Using the financial function 'fv', 'pv', 'pmt'
- g. Using the lookup function 'vlookup'
- h. Using the lookup function 'hlookup'.
- i. Using the database function 'dsum', 'dmin', 'dmax', 'dcount', 'daverage'
- j. Creating a two-level nested function.
- k. Using a 3-D reference within a sum function
- l. Using mixed references within formulas

### 3. Charts

- a. Creating charts
  - i. Creating a combined column and line chart.
  - ii. Adding a secondary axis to a chart.
  - iii. Changing the chart type for a defined data series.
  - iv. Adding a data series to a chart.
  - v. Deleting a data series within a chart.
- b. Formatting charts
  - i. Changing the scale of value axis including minimum, maximum number to display and major interval
  - ii. Changing display units on value axis without changing data source including hundreds, thousands and millions
  - iii. Formatting different chart Object to display an image

### 4. Analysis

- a. Using tables
  - i. Creating a pivot table.
  - ii. Modifying a pivot table.
  - iii. Modifying the data source and refreshing the pivot table.
  - iv. Filtering and sorting data within a pivot table.
  - v. Automatically and manually grouping data in a pivot table and renaming groups.
  - vi. Using one-input data tables.
  - vii. Using two-input data tables.
- b. Sorting and filtering data
  - i. Sorting data by multiple columns at the same time.
  - ii. Creating a customized list and performing a custom sort.
  - iii. Automatically filtering a list in place.
  - iv. Applying advanced filter options to a list.
  - v. Using automatic sub-totalling features.
  - vi. Expanding and collapsing outline detail levels.

#### Scenarios

- vii. Creating named scenarios.
- viii. Showing scenarios.
- ix. Editing scenarios. Deleting scenarios.
- x. Creating a scenario summary report.

### 5. Validating and auditing

- a. Validating
  - i. Setting and editing validation criteria for data entry within a cell range
  - ii. Entering an input message and error alert.
- b. Auditing
  - i. Tracing precedent cells.
  - ii. Tracing dependent cells.
  - iii. Identifying cells with missing dependents.
  - iv. Showing all formulas in a worksheet, rather than the resulting values.
  - v. Inserting , Editing, Deleting, Hiding comments

### 6. Enhancing productivity

- a. Naming cells
- b. Paste special options
- c. Templates
  - i. Creating a spreadsheet based on an existing template.
  - ii. Modifying a template
- d. Linking, embedding and importing
  - i. Inserting, Editing, Removing a hyperlink.
  - ii. Linking data within a worksheet
  - iii. Linking data between worksheets
  - iv. Linking data between workbooks
  - v. Linking data between applications
  - vi. Updating a link. - Breaking a link.
  - vii. Importing delimited data from a text file.
- e. Automation
  - i. Recording a simple macro like changing the page setup.
  - ii. Recording a simple macro like inserting fields in worksheet header or footer.
  - iii. Running a macro.
  - iv. Assigning a macro to a custom button on a toolbar.

### 7. Collaborative editing

- a. Tracking and reviewing
- b. Security