

# **Excel Modules**

## Formulas I (Calculations)

The most important feature of spreadsheets is the ability to create formulas that perform calculations based on values entered by the user or derived from yet other calculations.

- How to enter and edit formulas
- How to copy formulas (absolute versus relative reference)
- Common mistakes in formulas (circular reference, etc.)

## Formulas II (Functions)

Excel comes with a large number of functions that will assist the user to create complex spreadsheet with relative ease.

- Using built-in Excel functions
  - o Text
  - Lookup and reference
  - Logical
  - Date and Time
  - Database
  - Information
  - o Quick overview of Mathematical, Statistical, Financial, Engineering

### **Formatting**

Formatting is used to present the data, not just esthetically but also logically. Themes are a way to standardize all spreadsheets across an organization.

- Text. dates, numbers
- Tables, borders and shading
- Wrap text
- Rounding errors
- Themes (colours and font)
- Conditional formatting

#### **Page Setup**

Control how your data gets printed, add headers an footers, zoom in and out.

- Page options
- Header and Footer
- Orientation
- Print titles and other printing options



# **Excel Modules**

#### Data I

Use Excel to manage large datasets. The features of Excel makes this very simple yet powerful.

- Filtering and sorting
- Advanced filtering
- Validations (restrict values that can be entered)
- Forms (Data entry form for tables)
- Sub totals
- Group and outline
- Pivot tables

## Data II (Import external data)

Instead of entering data by hand it is possible to import data from another software tool, either as text files or directly from database systems.

- Text to columns
- Import from text files
- Import data from databases (ODBC drivers)

#### Charts 1

Represent data as charts for greater clarity. In this module the most popular and useful chart types are covered.

- Create charts (Line, Column, Bar, Pie, Area, Scatter plot, Doughnut)
- Simple editing and formatting

### **Charts II (Advanced Customization)**

In this module we look at the customizing charts in all ways possible.

Advanced editing and formatting of charts

### **Charts III (Uncommon Chart Types)**

In this module the not so common chart types are introduced.

- Create other chart types (Stock, Surface, Bubble, Radar)
- Simple editing and formatting

### **Tables (Lists in older versions)**

Marking an area of data as a table makes some useful features available.

Difference from range, benefits of table



# **Excel Modules**

- Create and edit
- Table Tools

## What If Analysis/Modeling

Use Excel to analyze multiple complex situations.

- Data Tables (one and two variable)
- Scenario Manager
- Goal Seek

#### Collaboration

Work as a team on a single spreadsheet.

- Share workbook
- Track changes
- Protection

## **Auditing**

This feature can be helpful for troubleshooting complex formulas. It allows you to visually realize how the cells are related.

- Trace precedents
- Trace dependents

#### **Macros I**

Automate tasks by recording a number of steps in a macro. This Macro can then be rerun to repeat the steps in a different situation.

- Record new macros
- Modify recorded macros

#### **Macros II**

This module requires familiarity to programming, preferably in Visual Basic.

- Introduction to Visual Basic for Applications
- Write your own functions