

# MICROSOFT EXCEL: BASIC TO INTERMEDIATE LEVEL

---

Mahmoud Alkawareek, PhD  
The University of Jordan  
Feb, 2020



# CONTENTS



INTRODUCTION TO  
MICROSOFT EXCEL



ENTERING,  
MODIFYING AND  
FORMATTING DATA



BASIC FUNCTIONS



BASIC CHARTS



LIST FUNCTIONS  
AND DATA  
VALIDATION



LOOKUP  
FUNCTIONS



PIVOT TABLES



OTHER TASKS AND  
TOOLS

# INTRODUCTION TO MICROSOFT EXCEL



Why Excel?



How to Get Excel?



Excel Interface

Tabs and Ribbons  
Quick Access Toolbar  
Status Bar



Workbook Structure

Workbook vs. Worksheet  
Editing Worksheets  
Navigating Worksheets



Cell References

Relative vs. Absolute Reference  
Name Ranges

# ENTERING, MODIFYING AND FORMATTING DATA



Text vs. Numeric Data



Number Format Options



Formatting Cells

Format Painter  
Cell Styles  
Merge and Center  
Wrap Text



Editing Rows and  
Columns

Inserting and Deleting  
Width and Height  
Hiding and Unhiding



Importing Data

# BASIC FUNCTIONS



Manual formulas

Order of Operation



Basic Statistical Functions

Sum, average, STDEV, count,  
min, max...



AutoSum Command



AutoFill Command



Text Functions

LEFT, RIGHT and MID  
LEN  
CONCATENATE

# BASIC CHARTS



XY Scatter

Chart and  
Axis Format  
Trendline



Column Chart



Pie Charts

# LIST FUNCTIONS AND DATA VALIDATION



## Sorting Data:

Single Level Sort  
Multi-Level Sorts  
Custom Sorts



## Filters



## Freeze Panes Tool



## Subtotals



## Conditional Formatting

# LIST FUNCTIONS AND DATA VALIDATION



Format as a Table



Removing Duplicates



Excel List Functions

DSUM, DAVERAGE,  
DCOUNT, SUBTOTAL  
(with filters)



Data Validation

Validation List  
Dynamic Functions  
Using Validation List



# LOOKUP FUNCTIONS



VLOOKUP



HLOOKUP

# PIVOT TABLES



Creating a PivotTables



Drilling Down into PivotTable Data



Creating PivotCharts



Filtering PivotTable Data

# OTHER TASKS AND TOOLS



Printing Worksheets



Excel Templates



Exporting Data



ShortCuts