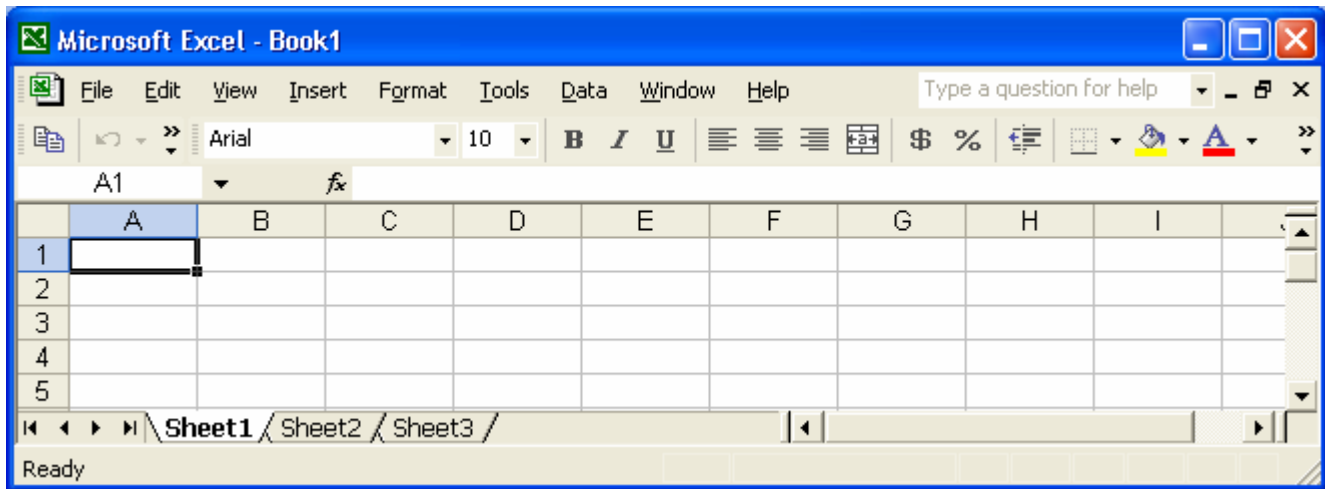


EXCEL - Prof. Richard B. Goldstein



Top:	Notebook Title Bar	- Control Boxes and Program Title
Line #2:	Menu Bar	- File, Edit, View, etc. pull-down menus
Line #3:	Tool Bar	- Icon buttons for shortcuts
Line #4:	Formula Bar	- Shows current cell, formula entry area
Center:	Notebook Window	- this is the work area (more than one may be open at the same time)
Bottom:	Status Bar	- Ready status and other comments

NOTEBOOK WINDOW

- Filename appears on top (Excel uses .xls as the extension)
- Columns are shown (A to Z to AA to ... IV; there are 256 columns)
- Rows are shown (1 to 65536)
- Sheets are shown as tabs (starting with Sheet 1, Sheet 2 but can be renamed and colored - there are 256 in all.)
- Cells are described by notebook (filename), page or tab, column, and row
- Control boxes, Scroll bars and boxes

FILE OPTIONS (from the pull-down menu bar)

NEW	open a new notebook	icon #1 or Ctrl + N
OPEN	open an existing notebook	icon #2 or Ctrl + O
CLOSE	closes the current notebook	Ctrl + W
SAVE	saves the current notebook	icon #3 or Ctrl + S
SAVE AS	rename and save anywhere	
PRINT	print the highlighted page	icon #4 or Ctrl + P
PRINT PREVIEW	quick view of entire page	
PAGE SETUP	paper size, scaling, orientation	
EXIT	leave Excel	Ctrl + Q or CTRL + F4

ENTERING DATA IN CELLS

- Movement from cell to cell can be done in a number of different ways
- Cells may contain numbers, characters, and formulas
examples: 4128.7 Expenses @SUM(A3:B8) or =sum(a3:b8)
- Information may be displayed in different fonts, sizes, and justification.
- Numbers may be formatted in different forms (fixed, currency, etc.).
- To edit an existing cell go to the cell, double-click or press the function key: F2.

FORMULAS

Simple formulas can be made using numbers and cell locations. Some examples:

=15*B1 =A1^3 =(A1+B2)/(C3-E5) =B1+\$C3*B\$5

BUILT-IN FUNCTIONS

There are over 400 built-in functions from the following categories: Database, Date and time, Engineering, Financial, Logical, Mathematical, Miscellaneous, Statistical, and String.

- Function arguments may be a simple cell or number. For example: =abs(b3)
- They may require several arguments: =PMT(0.005,300,100000)
- They may allow cell ranges (blocks): =SUM(A4:B12,E3,F1:F12)
- They may be nested: =EXP(SUM(B1:B4))

ENHANCING THE APPEARANCE OF A CELL



Highlight the cell or cells you want to format and choose **Format | Cells**.

Number	decimal, currency, comma, date, etc.
Alignment	options of horizontal or vertical alignment including centering across a block of cells
Fonts	change the font or its size or color
Border	allows the user to outline several cells, add different border types around cells, change border colors, change the fill colors or shading, as well as hide the grid itself
Pattern	allows the cells to be colored or shaded in different patterns
Protection	cells may be locked or hidden

Some changes can be made directly:

Cell Widths	Move up to the A B C ... column headings and shift the ← →
Cell Heights	Move left to the 1 2 3 ... row headings and shift the ⇕
Tool Bar	Contains: Font, Size, Bold, Italic, Underline, Numeric Format, Horizontal Alignment, Line Drawing, Background Color, Font Color, & All Properties of highlighted cells

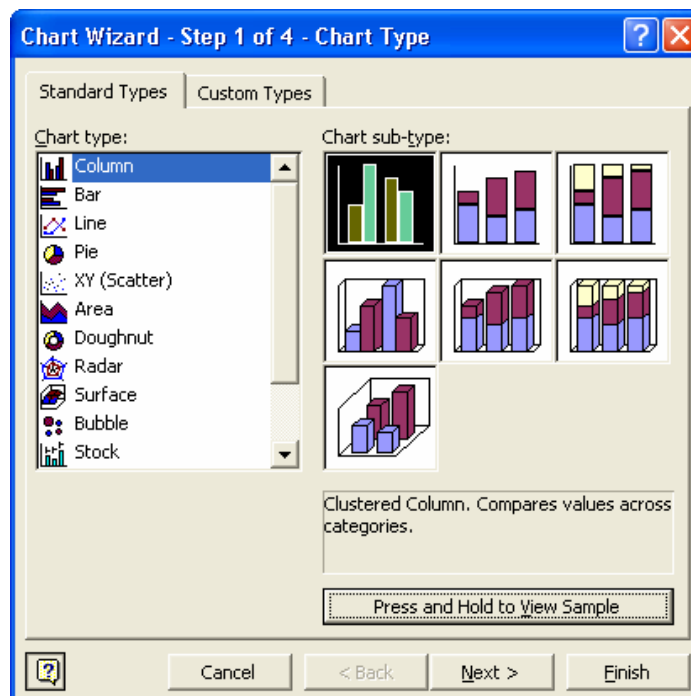
EDITING THE NOTEBOOK PAGE

- Add columns or rows by using **Insert | Cells...** or **Insert | Row** or **Insert | Column** or **Insert | Worksheet**
- Delete columns or rows by highlighting the cells and choose **Edit | Delete**
One can choose to **shift cells left** or **up** and this can be done for the entire row or column
- Make an individual cell wide enough to fit or the entire column by highlighting its cell heading (letter) and by **Format | Column | AutoFit**
- Cut and Paste by using the scissor and paste bottle icons or by using **Edit | Cut** (or Ctrl+X) and **Edit | Paste** (or Ctrl+V)
- Copy and Paste by using the double page and paste bottle icons or by Edit | Copy (also Ctrl+C) followed by Edit | Paste (also Ctrl+V). By left clicking the lower right hand corner of a cell (you will see a “+” sign) and dragging the mouse to the right or down you can copy a cell or its formulas relatively to other cells.
- Use the keys:   of the Toolbar to undo or redo recent changes.
- Use the 100% on the Tool Bar to change the screen view from 10% to 400% or use **View | Zoom**

CHARTS / GRAPHICS

Excel has over 50 different types of two and three dimensional charts/graphs. The graphs may be customized by changing colors, background, labeling titles and axes, borders, resized, and placed anywhere on a notebook page.

- Start by highlighting the data to be graphed and select: **Insert | Chart** from the Menu Bar. The Chart Expert will take you through several steps.



- Step 1: General type of chart - Column (7 choices), Bar (6), Line (7), Pie (6), etc. and there are also Custom Types such as area blocks and cones.
- Step 2: You may change row or column order, add remove or name/rename series. A preview is also available of the changes.
- Step 3: Give the chart's **Title, X-Axis (label), Y-Axis**. Gridlines can be hidden, the legend may be moved or removed, and one can add table values or labels on the charts.
- Step 4: The chart can be added on the current sheet or on a new sheet.

If you choose to place the chart on the current sheet, drag the mouse to the position of choice and drag to the appropriate size. When you release the mouse button, the chart will appear. You can still make many changes including its size and location.

- To make changes first **left click** on the chart. Then either **right click** on the object or choose **Chart** from the menu.
- One can change the **Type/Layout, Series, Titles, and Background Properties**
- Also, by clicking on individual objects - lines, bars, titles, pane, legend, etc. one can alter their appearances or locations on the chart.
- Once inserted, a floating chart can still be moved by dragging it or can be resized by adjusting the handles. Also, parts of the graph can be resized and moved around.

SAMPLES/TEMPLATES

- There are a few sample templates files ending in .xlt. They can be found by using the menu: **File | New** and looking for section called templates.

TOOLS FOR ANALYSIS

- Under **Tools** in the Menu Bar some useful choices are Spell Check, Data Analysis, Solver, and Numeric Tools. They allow the user various options with data manipulation, working with matrices, curve fitting - linear & multiple linear regression, as well as mortgage payment schedules. Under Tools one can also change various options such as where default files are stored, auto corrections, etc.

DATA MANAGEMENT

- A database (notebook) consists of one or more files (pages of the notebook) which are composed of several records (rows on the page) and are further broken down into different fields (columns on the page).
- Typical activities are searching (doing a query on) the database for matching records to a set of criteria. These records may also be extracted - placed elsewhere on the notebook page. Also, sorting alphabetically or numerically in ascending or descending order is another common activity. Many of these activities such as sorting, searching, and extracting data are done through **Data** in the menu bar.

MACROS

- Macros can be created as a time saving device. They are started by: Tools | Macro | Record. Once recorded, they provide a quick and automatic approach to doing several tasks.

SHARING FILES/MULTIPLE FILES

- One can have several notebooks open at once. They may appear together on one screen in cascade or tile form. Information can be extracted or linked from one spreadsheet to another - Object linking and embedding (OLE). Also, Word and Excel documents can be linked.

OTHER CAPABILITIES

- Drawing arrows, balloons, etc. on the individual sheets.
- Adding Internet hyperlinks or saving sheets in HTML format.
- Inserting picture files, written formulas, sound clips, and other objects.
- Inserting comments and text box areas.
- Print preview, print area, page breaks, etc. can be shown.
- If available Insert | Object | Microsoft Map