

*WORKING SMART IN
MICROSOFT EXCEL 2007*

REFERENCE GUIDE



1 8 6 4

UNIVERSITY TECHNOLOGY SERVICES
COMPUTER TRAINING


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General Layout Rules

One row of headings

To wrap words within a cell:
Select the cells that contain column headings.

From the **Home tab**, in the Alignment group click .
Force a line break within a cell = Alt + Enter

One group of data per worksheet

Excel can automate many functions if only one solid, no-blank-row and no-blank-column block of data is on each worksheet (page).

To add a new worksheet:
1. Right-click the worksheet tab that you want to insert a new page in front of.
2. From the shortcut menu, choose **Insert...Blank Worksheet**. Click **OK**.

To rename a worksheet:
1. Double-click the worksheet tab and type a new tab title.
2. Click anywhere on you worksheet to un-select the worksheet title.


To move a worksheet:
1. Drag the worksheet tab to the desired location.

To copy a worksheet:
1. While holding Ctrl, drag the worksheet tab to its new location. Be sure to let go of the mouse before letting go of Ctrl.

To delete a worksheet:
1. Right-click the tab of the sheet you want to remove.
2. Choose **Delete**.

No blank rows

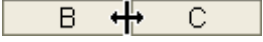
Blank rows in a worksheet are used to define separate lists.

To add additional space between rows:
1. Select the rows you want to add space between.
2. Position your cursor below the row number of one of the select rows.
3. Drag the up-down arrow cursor down to  make the row taller.


No blank columns


Blank columns in a worksheet are used to define separate lists.

To adjust column width:

1. AutoFit the column width to the widest entry by double-clicking the boundary of the right side of the column heading 

OR

1. Use your mouse to drag the boundary of the right side of the column heading.
2. To Indent text within a cell:
3. Select the cells to indent.
4. Click the Indent  button on the toolbar.

Un-indent text with the un-indent button 

Navigation

Quick Access Toolbar

-

Keyboard shortcuts

- **Go to Cell A1** = Ctrl + Home
- **Go to last used cell in worksheet** = Ctrl+End
- **Zoom** = Ctrl+Scroll Wheel up or down
- **Next or Previous Worksheet** = Ctrl+Page Up or Ctrl+Page Down

Freeze panes

To keep row and column labels or other data visible as you scroll through a sheet, you can "freeze" the top rows and/or left columns. The frozen rows and columns don't scroll but remain visible as you move through the rest of the worksheet.

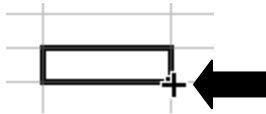
1. Select the rows/columns to lock in place.
 - To lock rows, select the row below where you want the split to appear.
 - To lock columns, select the column to the right of where you want the split to appear.
 - To lock both rows and columns, click the cell below and to the right of where you want the split to appear.
2. On the **View tab**, click **Freeze Panes**.
To unlock rows, click **Unfreeze Panes** on the **View Tab**.

Data Entry

Data entry tools

- **Enter** after entering data moves the active cell down. (To change the Enter direction, choose Office Button/Excel Options/ Advanced. Choose the desired direction from the Direction ▼ box. And click OK.)
- Press **Tab** after entering data to move to one cell to the right.
- Fill a range of cells with the same data = Select Cells, Type data, press Ctrl + Enter
- Fill empty cells within a selected range with contents of first cell = Ctrl + R (Right) and Ctrl D (Down)
- AutoComplete fills data from an adjacent list

AutoFill



AutoFill Formulas

1. Create the desired formula for the first record.
2. Click and drag with the AutoFill handle to copy the formula to remaining columns/rows.

AutoFill Series

1, 2, 3	4, 5, 6,...
9:00	10:00, 11:00, 12:00,...
Mon	Tue, Wed, Thu,...
Monday	Tuesday, Wednesday, Thursday,...
Jan	Feb, Mar, Apr,...
Jan, Apr	Jul, Oct, Jan,...
Jan-99, Apr-99	Jul-99, Oct-99, Jan-00,...
15-Jan, 15-Apr	15-Jul, 15-Oct,...
1999, 2000	2001, 2002, 2003,...
1-Jan, 1-Mar	1-May, 1-Jul, 1-Sep,...
Qtr3 (or Q3 or Quarter3)	Qtr4, Qtr1, Qtr2,...
text1, textA	text2, textA, text3, textA,...
1st Period	2nd Period, 3rd Period,...
Product 1	Product 2, Product 3,...

AutoFill Patterns

2, 4, 6,	8, 10, 12, 14
9:00, 11:00	1:00, 3:00
Mon, Wed,	Fri, Sun, Tue
Jan, Apr	Jul, Oct

Automatic AutoFill

1. Create the desired formula for the first record.
2. Double-click the AutoFill handle to copy the formula to remaining columns/rows with adjacent data.

Formulas

Formula basics


- All formulas begin with =
- NEVER enter numbers into formulas—use cell addresses ONLY
- Excel performs multiplication and division calculations before addition and subtraction in a formula
To change this order of evaluation, enclose in parentheses the part of the formula to be calculated first. **EXAMPLE:** 5+2*3=11; (5+2)*3=21

Creating formulas


1. Click in the cell you want the formula result to appear in
2. Type =
3. Click on the first number to be used in the formula
4. Type the operator (+ - / *) for the formula
5. Click the next number to be used in the formula
6. Press Enter.

AutoSum for a single row or column total

Inserts an addition formula in the active cell

1. To add a total to a column or row
2. Click in the cell you want the formula result to appear in
3. Click the AutoSum button . Excel puts a marquis around the cells it thinks you want to total.
4. If the selected range is correct, press **Enter**
5. If the selected range is incorrect, drag across the correct range and press **Enter**.

AutoSum for a group of row and/or column totals

1. To create totals for multiples columns and/or rows
2. Select the data you want to total plus a blank row or column where the totals will appear.
3. Click the AutoSum tool . Excel will insert totals into the blank cells automatically.

Note: The AutoSum button can now insert any formula. Click the down arrow to the right of the AutoSum button to choose additional functions.

Absolute and relative cell references

A relative cell reference in a formula, such as A1, is based on the relative position of the cell that contains the formula and the cell the reference refers to. If the position of the cell that contains the formula changes, the reference is changed.

An absolute cell reference in a formula, such as \$A\$1, always refer to a cell in a specific location. If the position of the cell that contains the formula changes, the absolute reference remains the same. If you copy the formula across rows or down columns, the absolute reference does not adjust.

By default, cell references in formulas are relative!




The dollar sign in front of a row and/or column reference makes that reference absolute.

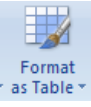

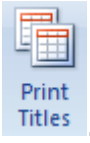
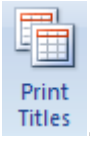
The **F4** key toggles through the absolute cell reference options.

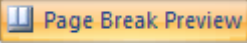






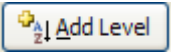
To change cell references from relative to absolute:
 Double-click the cell with the formula you want to edit.
 Select the cell reference you want to change.
 Press F4 until the \$ is in the desired position(s).

<p>Error Messages—What do they mean?</p>	<p>#### Column too narrow to display data #DIV/0! Formula divides by 0 #N/A Refers to a value that isn't available #NULL! Refers to cells in a function or formula that do not intersect #NUM! Formula or function refers to the wrong type of number #REF! Formula or function refers to an invalid cell #VALUE! Formula or function is calculating non-numeric data</p> <p>When a formula displays an error code, from the Formulas tab choose Error Checking... to view a detailed explanation.</p>
<p>Formula SmartTags</p> <p><i>Alerts to inconsistent formulas. Adjusts sum formula to include adjacent cells. Appears as green triangle in upper left of cell.</i></p>	<p>Click the green triangle in the upper left of a cell to view the details of the formula error.</p>

Formatting

<p>Formatting shortcuts</p>	<ul style="list-style-type: none"> • Select a row = Click on Row Number or Shift + Spacebar from any cell in the row • Select a column = Click on Column Letter or Ctrl+Spacebar from any cell in the column • Select entire worksheet = click outside of data and Ctrl+A • Select data = Ctrl+Shift+* • Select a word in a cell = double click to edit cell, then double click word • Access the Format...Cells dialog box = Ctrl + 1 • Currency format = Ctrl + Shift + \$ • Comma Format = Ctrl + Shift + ! • Date Format = Ctrl + Shift + # • Percentage Format = Ctrl + Shift + % • Apply formats when typing- 20% = .2 • Strikethrough = Ctrl + 5 • Cut = Ctrl + X • Copy = Ctrl + C • Paste = Ctrl + V • Cancel Copy Marquee = Esc • Add or remove Bold = Ctrl + B • Add or remove underline = Ctrl + U • Add or remove italics = Ctrl + I • Double Underline = Shift + 
<p>Drag and Drop to copy or move</p> <p><i>By default, drag-and-drop editing is turned on so that you can use the mouse to move and copy cells.</i></p>	<ol style="list-style-type: none"> 1. Select the cells or range of cells that you want to move or copy. 2. Do one of the following: <ul style="list-style-type: none"> • To move a cell or range of cells, point to the border of the selection. When the pointer becomes a move pointer , drag the cell or range of cells to another location. • To copy a cell or range of cells, hold down CTRL while you point to the border of the selection. When the pointer becomes a copy pointer , drag the cell or range of cells to another location

<p>Format as Table</p> <p><i>A built-in collection of cell formats (such as font size, patterns, and alignment) that you can apply to a range of data. Excel determines the levels of summary and detail in the selected range and applies the formats accordingly.)</i></p>	<ol style="list-style-type: none"> 1. Click in the range you want to format. 2. From the Home tab, click  Format as Table . <ul style="list-style-type: none"> • AutoFilter is applied automatically.
<p>Conditional Formatting</p> <p><i>Formatting automatically applied to a worksheet based on the data in the worksheet.</i></p>	<ol style="list-style-type: none"> 1. Select the cells you want Excel to analyze. 2. On the Home tab, click  Conditional Formatting . 3. Select from the predefined formats or choose New Rule to create a custom set of criteria.
<p>Standard Headers and Footers</p>	<ol style="list-style-type: none"> 1. Click anywhere in the worksheet. 2. On the Insert tab, click Header or Footer. 3. In the Header or Footer box, click the header or footer you want to use.
<p>Custom Headers and Footers</p> <p><i>You can have only one custom header and one custom footer on each worksheet. If you create a new custom header or footer, it replaces any other custom header or footer on the worksheet.</i></p>	<ol style="list-style-type: none"> 1. Click the worksheet. 2. On the Insert tab, click Header and Footer. Excel will change your worksheet display to Page Layout view. 3. Click Edit Header or Edit Footer. 4. Click in the Left section, Center section, or Right section, and then click the buttons to insert the header or footer information you want in that section.
<p>Repeat Rows on each page when printing</p>	 <ol style="list-style-type: none"> 1. On the Page Layout tab, click  Print Titles . 2. Click in the Rows to Repeat at Top box. 3. On the worksheet, select the rows that should print on each page. 4. Click OK.

<p>Page Break Preview</p> <p><i>Worksheet view that displays the areas to be printed and the locations of page breaks. The area to be printed is displayed in white, automatic page breaks appear as dashed lines, and manual page breaks appear as solid lines.</i></p>	<ol style="list-style-type: none"> 1. From the View TAB choose  Page Break Preview. 2. Dotted lines indicate automatic page breaks. 3. Drag automatic page breaks up to set a manual page break. 4. To return to the normal view, from the View tab, choose  Normal.
<p>Center Text Across Multiple Cells</p> <p>When you merge two or more adjacent cells, the contents of one cell is spread over the other cells</p>	<ol style="list-style-type: none"> 1. Copy the data you want to display in a merged cell into the upper-leftmost cell of the range of adjacent cells you want to merge. 2. Select the cells you want to merge. 3. Click Merge and Center  on the Home tab, which will merge cells in a row or column and center the cell contents. 4. To change the text alignment in the merged cell, click Align Left  or Align Right  on the Home tab.
<p>Sort</p>	<p>To sort by one field:</p> <ol style="list-style-type: none"> 1. Click a cell in the column you would like to sort by. 2. Click  on the Home tab in the Editing group. 3. To sort by one field, choose Sort A to Z or Sort Z to A. When sorting by multiple fields, for best results, the range you sort should have column labels. 4. Click a cell in the range you want to sort. 5. Click  on the Home tab in the Editing group. 6. Select Custom Sort. 7. Choose the first field to sort by in the Sort by box followed by the sort criteria. 8. Click . 9. Select the second field name to sort by. Add additional fields as necessary. There is no limit to the number of fields that can be added.

<p>Separate data in cell</p> <p><i>Divides the contents of unmerged cells and display it across other cells.</i></p>	<ol style="list-style-type: none">1. Select the cell, range of cells, or an entire column that contains the text values you want to divide across other cells. A range can be any number of rows tall, but no more than one column wide. <p>Important There must be one or more blank columns to the right of the selected column or the data to the right of the selected column will be overwritten.</p> <ol style="list-style-type: none">2. On the Data tab, click Text to Columns.3. Follow the instructions in the Convert Text to Columns Wizard to specify how you want to divide the text into columns.
<p>Combine data from multiple cells</p>	<ol style="list-style-type: none">1. Combine data from worksheet and constants (in quotation marks) using the & symbol. <p>Example =A1&" "&B1 combines the contents of cells A1 and B1 and inserts a space between the data.</p>