Name: Carlos F Revilla

Quick Start Guide for **Excel**

P.S – you can use **ctrl+F to search** what you need in the If I need to column
Also, if you type MATLAB into the ctrl+F search bar you can skip to the MATLAB quick start guide

If I need to…	**Use these commands/directions…**	**WHERE CAN I GET MORE HELP?**
Create a new workbook	Once you have opened excel you can double click on Blank Workbook and excel will load a new Blank Workbook.	https://www.linkedin.com/learning/learning-excel-2019/create-a-new-workbook?u=2203468 BTW- This^ links to Video tutorials teaching you the basics of excel and is extremely helpful!
Open an Existing workbook	When you open Excel, you can access already existing Workbooks through clicking on File in the top left (then a side window would appear) where you will find and double click on "open" this will enable you to look through your files for existing workbooks to work on/ access.	https://www.excel-easy.com/ this site is also useful for everything Excel ^
Add another sheet to my workbook	At the bottom of your workbook, you will see Sheet1 and next to it a + sign - simply click the plus to get a new sheet (2)	
Import Data	Click on Data at the top of your excel workbook -> Get data (top left) -> select from where you want to import the data -> select what type of file the data is in	
Add Values from separate Cells	=(cell column1)(cell row1) **+** (cell column2)(cell row2) Then press enter Example: =C3 + C4	https://support.microsoft.com/en-us/office/create-a-simple-formula-in-excel-11a5f0e5-38a3-4115-85bc-f4a465f64a8a
Subtract Values from separate Cells	=(cell column1)(cell row1) **-** (cell column2)(cell row2) Then press enter Example: =C3 **-** C4	https://support.microsoft.com/en-us/office/create-a-simple-formula-in-excel-11a5f0e5-38a3-4115-85bc-f4a465f64a8a
Multiply Values from separate Cells	=(cell column1)(cell row1) ***** (cell column2)(cell row2) Then press enter Example: =C3 ***** C4	https://support.microsoft.com/en-us/office/create-a-simple-formula-in-excel-11a5f0e5-38a3-4115-85bc-f4a465f64a8a

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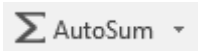
Divide Values from separate Cells	=(cell column1)(cell row1) **/** (cell column2)(cell row2) Then press enter Example: =C3**/**C4	https://support.microsoft.com/en-us/office/create-a-simple-formula-in-excel-11a5f0e5-38a3-4115-85bc-f4a465f64a8a
Graph my data	Highlight your data-> click on insert at the top -> go to recommended charts->choose which type of graph you want to use to graph your data.	https://www.workzone.com/blog/how-to-make-a-graph-in-excel/
Excel Shortcuts	You can find loads of excel shortcuts here ->	https://www.customguide.com/cheat-sheet/excel-cheat-sheet.pdf
Set Decimal Places	You can enter a value into a cell and in the Home tab, in the Number group, click the Decrease/Increase Decimal button	https://www.excel-easy.com/basics.html
Calculate with autosum	1. Select the cell below the numbers you want to add. 2. Select **Home** > **AutoSum**  . 3. Press Enter.	Access the excel help documentation for more help by typing the command you want to learn more about in the help search bar
Fill a series pattern of data automatically	1. Enter the beginning of the series in two cells: such as Jan and Feb; or 2014 and 2015. 2. Select the two cells containing the series, and then drag the fill handle  across or down the cells.	more help by typing the command you want to learn more about in the help search bar
Export graph to pdf	1. File (top left) 2. Export in the drop-down menu 3. Hit create pdf and name and save your workbook wherever you want in the file explorer	more help by typing the command you want to learn more about in the help search bar
Remove blank cells in data	1. On the Home tab, in the Editing group, click Find & Select. 2. Click Go To Special.	more help by typing the command you want to learn more about in the help search bar

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	3. Select Blanks and click OK. Excel selects the blank cells. 4. On the Home tab, in the Cells group, click Delete. 5. Click Delete Sheet Rows. Result:	

Quick Start Guide for **MATLAB**

If I need to…	Use these commands/directions…	More info is found….
Set limits for x-axis for current axis - The same can be done for the y-axis	Type in xlim(limits) into your command window - ylim(limits)	By clicking the fx in the top left of the command window
Clear everything in the command window	Type clc into the command window	Type doc followed by the command you need help with into the command window to find out more about the command Example: doc clc
Clear all variables in the workspace window	Type clear into the command window CAUTION: this will erase all set variables in the workspace	Type doc followed by the command you need help with into the command window to find out more about the command Example: doc clear
Find a mean for given array values If you have NaN values that you want to ignore in your given array use ->	Type into command window>> mean(A) mean(A,'omitnan')	Type doc followed by the command you need help with into the command window to find out more about the command
Make a list of values (ie an Array)	Type into command window>> X = [1 2 3 4 5] By typing the following into the command window:	Type **doc Matrices and Arrays** into command window

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You can set the number of values you want from a certain range using linspace ----------→	Y = linspace(lowerbound value, higherbound value, value of icrementation)	
Make a matrix	X =[1 2; 3 4; 5 6;] Will output a matrix 1 2 3 4 5 6 The ; creates a new line / row to put values in	Type **doc Matrices and Arrays** into command window
Get a value from a matrix	In command window: X = varNameofMatrix(rowValue,ColumnValue) Example: If X is the matrix above you can do Y = X(2,1) and Y will equal the value 3	Chapter 2 of https://tinyurl.com/ty2rjxb7

Plot a Vertical Bar Plot	Function Format: bar(x,y)
	example:
	yr=[l988:1994];
	sle=[8 12 20 22 18 24 27];
	bar(yr,sle, 'r') – 'r' will color the bars red
	x1abe1(' Year ')
	ylabel(1Sales (Millions) 1)
		Pdf Page 164 - 172
		https://tinyurl.com/ty2rjxb7

Plot a different type of plot I.e. Horizontal Bar plot----------→ Stairs plot----------→ Stem plot----------→	 **bar(xaxis,yaxis)** **stairs(xaxis,yaxis)** **stem(xaxis,yaxis)**	Pdf Page 164 - 172 https://tinyurl.com/ty2rjxb7
Plot a pie chart with given data	x = [20 20 20 20 20] pie(x) <- should have 5 equal slices	Pdf Page **165** https://tinyurl.com/ty2rjxb7
Plot a histogram	Command is >>**hist(y)** You can also do **hist(y,3)** to divide the histogram into 3 equally spaced subranges	Pdf Page **167** https://tinyurl.com/ty2rjxb7

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Label axis	Command is>> xlabel('x axis') You can do the same for y -> ylabel(' blah ')	Type *doc xlabel* in command window
Import Data	Use function readtable in command window or scriptfile Ie readtable('filename');	Type *doc readtable* into command window Or find more info here: https://tinyurl.com/xk3cxc35
Convert Array to table	In command window/ script file type: Arraytotable(*arrayName*)	Type *doc arraytotable* into command window
Remove Variable names from tables	Use Function **removevars(tablename,{variableToRemove})** in commandwindow/ scriptfile	Type *doc removevars* into command window
Convert Columns from Tables to Arrays (column vector)	Use . Example hw = TableName.VariableName (column header) this assign hw all values from VariableName column into a column vector xby1	More info here: https://tinyurl.com/2ut756ha
Insert and place Variables into Tables	x = **movevars**(tableName,'VariabletoInsert','After',1) the 1 is indicating where to place the variable name here it is being placed after the first 1 column so it will be column 2	Type *doc movevars* into command window
Store Date	datetime(year value, month value , day value) you can continue to add hour value minute value and second value for more precise time	Type *doc datetime* into command window
Get length of time between dates	Use command between(intital date, final date) This will return the value of time between both dates in correct format of time ie (months/ hours days etc)	Type *doc between* into command window https://tinyurl.com/267wu67t

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Find roots of polynomial	Use command roots(x) X being the the variable name of the stored polynomial	Doc roots
Create a polynomial fit line	Use command polyval(p,x) <- p being the polyfit y value data and x being the domain of x values	Doc polyval
Create a good fit for your polynomial data	Use command polyfit(x,y,n) where x and y are your data from axis x and y and n is the degree of the polynomial	Doc polyfit