

Introduction to Microsoft Excel

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Definitions

- **Microsoft Excel:** Spreadsheet with rows and columns of a grid to store, organize, and analyse information
- **Workbooks:** Excel file; Also called *worksheet* or *spreadsheet*
 - Consists of separate **sheets**
- **Ribbon:** Tools and features at the top of the screen
 - Divided by tabs that have specific commands
- **Cells:** Noted by letter (column) and number (row)

Simple Commands

- New workbook: Control+N
- Save: Control+S
- Undo: Control+Z
- Scrolling
- Highlight one cell: Click
 - Highlight multiple cells: Click and drag OR Shift+Arrows
 - Highlight a row or column: Click on the letter/number

Activity

1. Open a new workbook
2. Save it as PSY 604/811/828
3. Type your name in the first cell
4. Undo so you have a clean workbook
5. Highlight Column B
6. Highlight cells B3 to D6
7. Highlight Row 3

Cell Content

- **Text:** Characters only; String
- **Numbers**
 - Different number formats
- **Formulas:** Begin with =
- **Formatting:** **Bold**, *italics*, underline, etc.
 - Number of decimal points
 - Percent

Formulas

Maths Operators	In Excel
Addition	+
Subtraction	-
Multiplication	*
Division	/
Exponents	^

Creating a Formula

1. Click in the cell that will contain the formula
2. Type equals sign (=)
3. Click on the first cell in the equation OR type the cell address
4. Type the mathematical operator
5. Click on the second cell in the equation OR type the cell address
6. Press enter

Activity

1. Cell A1: Enter your name
2. Cell B1: Enter your age
3. Cell C1: Use a formula to calculate Buhari's age plus Atiku's age
4. Cell D1: Use a formula to add 10 years to your age
 - Be sure you use cell B1 as a reference!
5. Add two decimal points to cell D1
6. Bold your name
7. Italicize and underline your age
8. Cell E1: Enter the amount you paid for tuition ONLY
9. Cell F1: Enter the total amount you paid for your MSc
10. Cell G1: Use a formula to calculate the percent of the TOTAL amount you paid for your MSc that is tuition (using cells E1 and F1 referents)
11. Click a button to make cell G1 a percent
12. Ensure there is 1 decimal point in cell F1

Editing a Formula

- Double click within the cell
 - Excel will highlight all cells that are referenced
- Highlight the cell
 - Click in the formula bar

Activity

1. Change the formula in cell C1 to take Buhari's age MINUS Atiku's age using the double-click method.
2. Using the formula bar method, change the formula in cell C1 to multiply Buhari's age by Atiku's age.

Simple Commands

- Tab: Across
- Enter: Down
- Change column/row width
- Insert rows/columns
- Delete cells vs. Delete content in cells
- Freeze panes
- Hide columns/rows
- Wrap text
- Merge cells
- Add and name a new sheet

Activity

1. Change column A width to 7.00
2. Wrap the text in Column A
3. Insert a row above row 1
4. Merge cells A1 to B1. In the new cell, enter "Personal Info"
5. Delete the content in cell E1. Notice what happens to cell G1
6. Delete column E. Notice what now happens to cell G1.
7. Hide column C
8. Freeze Row 1
9. Name the current sheet "Testing 1"
10. Add a new sheet and name it "Testing 2"

Simple Commands

- Copy and Paste
 - Paste will paste formulas, NOT values
- Paste Special:
 - **Formulas:** Excel will automatically update the cell referents
 - **Values:** Only numbers or text
 - **Transpose:** A row will be pasted as a column or vis versa
- **Fill handle:** Automatically copies and pastes down a row

Activity

1. Cut the name (cell A2) and paste it in the next row (cell A3)
2. Copy the percent tuition formula (cell G2) and paste to the next row (cell G3). Notice what happens.
3. Enter 50 in cell E3 and 100 in cell F3. Notice what happens to cell G3.
4. Copy the percent tuition formula (cell G2). Paste special into cell G4 with the value. Compare what happened here to what happened after #3.
5. Highlight cells A2 to G2. Copy and Paste Special – Transpose into cell B4.
6. In the worksheet *Testing 2*, enter numbers 1 in A1 and 2 in A2.
7. Use the fill handle to continue this numbering string to cell A10.
8. In cell B1, enter 2. In cell B2, enter 4.
9. Use the fill handle to continue this numbering string to cell B10.
10. In cell C1, add cells A1 plus B1.
11. Use the fill handle to copy this formula to cell C10.
12. Double click in A10 to see what is in the formula bar. Repeat for cells B10 and C10. Notice the difference between cell C10 and cells A10 and B10.

Errors

- *****Excel will do what you tell it to do. If you make an error, Excel will make an error.**
 - **Solution: Check, double check, and triple check your formulas**
- #####: There is not enough space for the number.
 - Solution: Increase the cell width
- #DIV/0!: The formula requires dividing by zero.
 - Solution: Fix the formula
- #NAME?: Invalid cell name
 - Solution: Check the cell referents in the formula

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