## Working with Text in Excel 2016



## OVERALL AIM:

To teach you techniques and functions for transforming, splitting, combining, summarizing, visualizing, and organizing text.

## LESSON OBJECTIVES

At the end of the session, the participants will be able to:

- Articulate the function and purpose of Excel 2016
- Transform your text using text wrap, text direction, merge cell, alignment, indent, outdent, lower, upper, and proper functions
- Split and combine text using text to columns, concatenation, and left
- Summarize text using COUNTA, COUNTIFS, and SUMIFS functions
- Visualize text using fonts, cell styles, and conditional formatting
- Organize text using filters, text filters, sorting, custom sorts, and sort by color


## REFLECTIVE QUESTIONS

- How can I use text in Excel more effectively?
- How can I use the same data for different purposes by transforming the text?


## EXCEL 2016

Excel is more than a spreadsheet program. With Excel, you can analyze data, perform calculations, add visualizations, and transform your data to make it more meaningful. Additionally, you can create nore text from existing text to further your analysis.

## TRANSFORMING TEXT

You can transform your text using the buttons in the Alignment group and the case functions: LOWER, UPPER, and PROPER.

## Alignment Buttons

The Alignment buttons adjust your text horizontally and vertically. To begin, click the cell(s)


Aligns the cell contents to the Top, Center, or Bottom of cell

Aligns the cell contents to the Left, Center, or Right of cell

## Text Direction

The Text Direction button allows you to change the directionof your text. You have several options from which to choose.

```
\partial% Angle Counterclockwise
```

\%\% Angle Clockwise
$\downarrow_{\mathrm{b}}^{\mathrm{b}}$ Vertical Text
$\uparrow$ ค Rotate Text $\underline{U p}_{p}$
L. Rotate Text Down

2\%: Format Cell Alignment

## Indent \& Outdent

The Indent and Outdent buttons shift the cell contents to the left (Indent) or to the right (Outdent).


## Wrap Text

The Wrap Text feature does just what the name implies. It wraps the text in the selected cell. It is helpful when working with long lines of text.

## Merge \& Center

You can use the Merge and Center feature to combine multiple cells into one cell and center the text. Additional options are available by clicking the down arrow.

## Case Functions

With the case functions, you can change your text to upper, lower, or proper case. To use, enter =Lower(B2) where B2 represents the cell containing the content to change.

| Function | Before | After |
| :--- | :--- | :--- |
| $=$ Lower(cell) | Washington, George | washington, george |
| $=$ Upper(cell) | Washington, George | WASHINGTON, GEORGE |
| $=$ Proper(cell) | washington, george | Washington, George |

## SPLITTING TEXT

You can split text using the Text to Columns feature or the Left function. These tools can be helpful when working with names that need reformatting.

## Text to Columns

The Text to Columns feature allows you to take the contents of a column and split it into additional columns. For example, you can use this tool to split last and first names. To split lastand first names,

1. Insert 2 columns to the right of the column with the names
2. Select the column containing the names
3. Click the Data tab
4. Click the Text to Columns button
5. Click Delimited and Next
6. Select the Delimiters (i.e. comma and space)
7. Select Text
8. Select Destination (Click the Cell Selector button)
9. Click Finish

## Left Function

The Left functions returns the specified number of characters counting from the left of the selected cell.

Formula: =LEFT(cell, number of characters)

| Function | J2 | After |
| :---: | :---: | :---: |
| $=\operatorname{LEFT}(\mathrm{J} 2,1)$ | California | C |
| $=\operatorname{LEFT}(\mathrm{J} 2,2)$ | California | Ca |
| $=\operatorname{LEFT}(\mathrm{J} 2,3)$ | California | Cal |

## COMBINING TEXT

The Concatenate function allows you to combine text. You can combine text from cells or other characters enclosed in double quotes (").

## Concatenate with a Space

Concatenate with a space allows you to combine text with a space between them, such as first and last names

Formula: =CONCATENATE(D2," " ${ }^{\text {,C2 }}$ )

- D2 represents the cell with the first name
- $\quad C 2$ represents the cell with the last name
- "" represents a space between the" (double quote)

| C2 | D2 | After |
| :--- | :--- | :--- |
| Washington | George | George Washingtion |
| Truman | Harry | Harry Truman |

## Concatenation with a Comma

Concatenate with a comma allows you to combine text with a comma and aspace between them, such as last name, first name

Formula: =CONCATENATE(C2, " ", "D2)

- D2 represents the cell with the first name
- C 2 represents the cell with the last name
- "," represents a comma and space between the " (double quote)

| C2 | D2 | After |
| :--- | :--- | :--- |
| Washington | George | Washington, George |
| Truman | Harry | Truman, Harry |

## SUMMARIZING TEXT

You can perform calculations using cells containing text. You can even perform calculations based on a condition being met.

## COUNTA

The COUNTA function allows you to count cells containing text. It will also count any spaces or hidden characters present in a cell.

## Formula: =COUNTA(Range)

- Range represents the cells, row, or column that you want to count

Example: You want to know how many people?
$=$ COUNTA(A2:A5) results in 4

|  | A | B |
| :--- | :---: | :---: |
| 1 | Name | State |
| 2 | George | California |
| 3 | Harry | California |
| 4 | James | California |
| 5 | Theodore | California |

## COUNTIFS

The COUNTIFS function allows you to count a range of cells based on the cell contents containing specific text. It will also count any spaces or hidden characters present in a cell.

Formula: =COUNTIFS(Range, Criteria)

- Range represents the cells, rows, or column that you want to count
- Criteria represent the condition to be met wrapped in "" (double quotes)
Example: You want to know how many students live in Arvin
=COUNTFS(A2:A4, "Arvin") results in 2

|  | A | B |
| :--- | :---: | :---: |
| 1 | City | State |
| 2 | Arvin | California |
| 3 | Bakersfield | California |
| 4 | Arvin | California |

## SUMIFS

The SUMIFS function allows you to add a range of cells based on the cell contents containing specific text.

Formula: =SUMIFS(Range, Evaluate, Criteria)

- Range represents the cells, rows, or column that you want to add
- Evaluate represents the cells, row, or column that you want to evaluate
- Criteria represent the condition to be met wrapped in """ (double quotes)

Example: You want to know how much students living in Arvin spend on transportation
=SUMIFS(B2:B4, A2:A4, "Arvin") results in 220

|  | A | B |
| :---: | :---: | :---: |
| 1 | City | Transportation Cost |
| 2 | Arvin | 100 |
| 3 | Bakersfield | 20 |
| 4 | Arvin | 120 |

## VISUALIZING TEXT

## Wingdings

Wingdings is a font. You can use this font and an lower case $n$ to represent Yes, received, attending, or whatever you like. To use change the font to Wingding.

|  | Before | After |
| :--- | :---: | :---: |
| George | Yes | $\square$ |
| Harry | No |  |

## Format as Table

The Format as Table allows you to format your table using one of predefined color palettes. To begin,

1. Select your data
2. Click Format as Table
3. Select a color palette

4. Check My Data has Header (optional)
5. Click OK

## Cell Styles

You can apply predefined fonts and colors to a cell, row, or column using Cell Style. To begin,

1. Select the desired range
2. Click the desired Cell Style


## ORGANIZING TEXT

You can organize your text using filters, text filters, sorting, and custom sorting.

## FILTERS

Filters allow you to select the type information you want to see and filter the rest out.

To activate filters,

1. Highlight Row 1
(This should be the row with your data headers)
2. Click Sort \& Filter
3. Click Filter


To use filters

1. Click the down arrow beside the desired column heading
2. Make your selections
3. Click OK


## TEXT FILTERS

Text Filters allow you to refine your filtering selection. You can choose from several options, such as contains, begins with, etc.

1. Click the down arrow beside the desired column heading
2. Select Text Filter from the pop-up menu

Equals...
Does Not Equal...
Begins With...
Ends With...
Contanins...
Does Not Contain...
4. Enter your criteria
5. Click OK

## SORTING

You can sort your information by the first column, a specific column, or multiple columns in a specified order.

Sort by first column

1. Select your data
2. Click the Sort \& Filter button

Sort by specific column

1. You can sort any column by clicking the down arrow beside the desired column heading
2. Choose your sort order

You can sort in descending, ascending, or by color

## A $\downarrow$ Sort A to Z

Z $\downarrow$ Sort $Z$ to $A$
Sort by Color

## CUSTOM SORTING

Custom Sorting allows you to sort multiple columns and to specify the sort order.

1. Select your data
2. Click the Sort \& Filter button
3. Click Custom Sort

On the Custom Sort,

- Check My data has headers
- In the Sort by, select the first column
- In the Order, select the sort order
- Click Add Level to add another column
- Complete the selections as above
- Click OK, when finished.



## WEB RESOURCES

## GCF LearnFree.org

GCF LearnFree.org is a subsidiary of Goodwill Industries. They offer free tutorials on numerous topics. The content includes step-by-step instruction as well as short videos. To learn more about Excel 2016, visit their website at:
https://www.gcflearnfree.org/excel2016/

## Google Search

You can find videos and instructionons on Excel 2016 and other topics. To find topics on Exel 2016 and text, type the following in the Google search box:

How to work with text Excel 2016

## Youtube Search

Youtube offers many videos on Excel 2016 among a host of other topics. To find videos on Exel 2016 and text, type the following in the Youtube search box:

How to work with text Excel 2016

## CSU Learn

CSU Learn provides over 10,000 courses on a wide range of topics. These courses are free to all CSU employees. This online computer-based training includes courses on Excel 2016.

1. Click the magnifying glass icon

2. In the search box, type Excel 2016
3. Press Enter on your keyboard
4. Scroll through the topics
5. Click Select for the desired course The icon indicates video courses.
6. Click Start
7. Click Start Course
8. Your course will open in a new window.

| NOTES |
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## LEARN MORE AT:

Excel 2016 PC
www.csub.edu/training/pgms/o2016P/ Excel2016/index.html

## CAMPUS TRAINING

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