Creating Accessible Tables Guide

Contents

Use Word's built-in functionality to create Tables

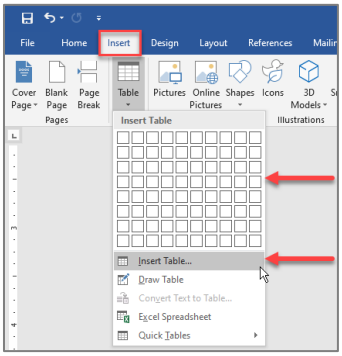
- Create tables by inserting them. **Avoid creating tables by drawing boxes** and lines or by using tabs and spaces. Screen readers have difficulty understanding tables with odd cell sizes.
- Simple Data Tables only.
- Tables have a logical reading order from left to right, top to bottom.
- Tables are labeled with alternative text.
- Provide Title (i.e. Caption) and Summary before the Table.
- Use Table Tools editor to identify the different types of rows and columns such as **Header Row and First Column.**

Keep your table simple

- Simple tables are easier to interpret for all students and screen readers.
- Use tables to organize data not format information. Never use table for layout.
- **Avoid merging cells, split cells, no blank cells, as well as tables nested within a cell.**
- The complex a table (merging cells, nesting multiple headings under one, adding blank lines, etc.) the worse it will be for accessibility.
- Sample of Simple Tables vs. Complex Tables by Penn State.

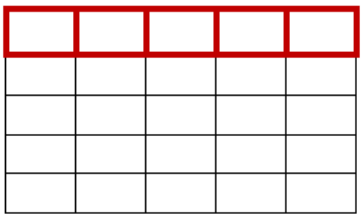
Step 1: Create a Table

A. Go to **Insert** and go to the “table” dropdown.
B. Select **insert a table**



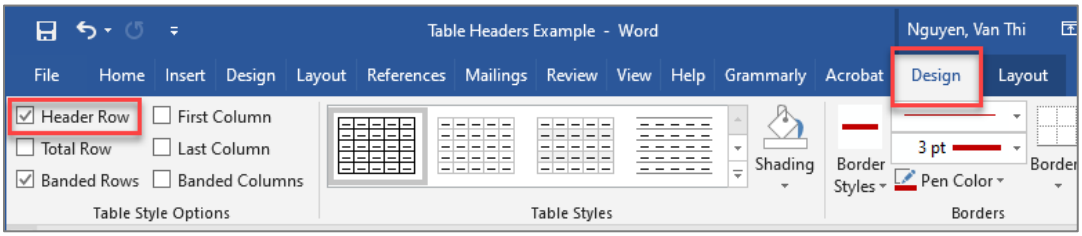
Step 2: Select Table Header Row

A table header row contains column headings that provide context and aid navigation of the table. People who can’t see the table can have column headings read aloud.



Header 1	Header 2	Header 3
Data 1	Data 2	Data 3
Data 4	Data 5	Data 6

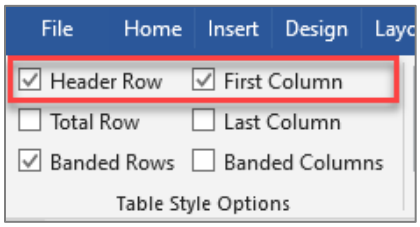
Example of Header Row



Design Tab > Header Row

Grade	Points	Percentage
A plus	960 to 1000	96 to 100%
A	930 to 959	93 to 95%
A minus	900 to 929	90 to 92%

Example of Header Row and First Column



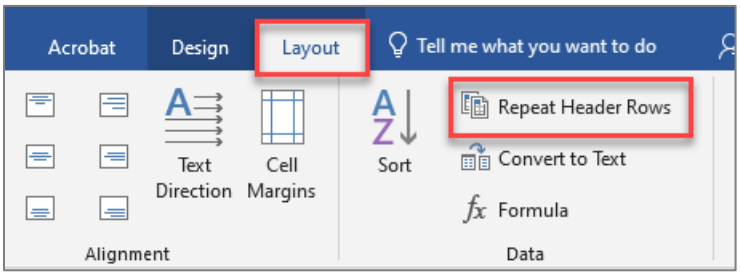
Design Tab > Header Row and First Column

Name	Project	Presentation
Student 1	95%	100%
Student 2	90%	75%
Student 3	60%	85%

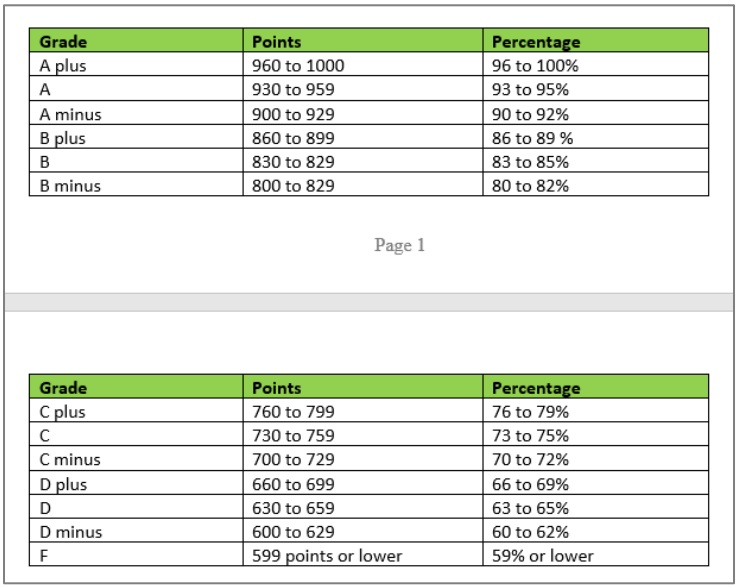
Step 3: Repeat Header Rows

Proper **table headers** help readers understand how tables are organized into columns and rows. Avoid solely using text and cell formatting, such as making the text big or bold to mimic the visual appearance of a table header, as this provides no underlying information about the structure of the table.

- Highlight the first row
- Layout tab then select Repeat Header Rows



When inserting a table at the bottom of a page in Word, the table break across two pages show **two repeating header rows as example**



Grade	Points	Percentage
A plus	960 to 1000	96 to 100%
A	930 to 959	93 to 95%
A minus	900 to 929	90 to 92%
B plus	860 to 899	86 to 89 %
B	830 to 829	83 to 85%
B minus	800 to 829	80 to 82%

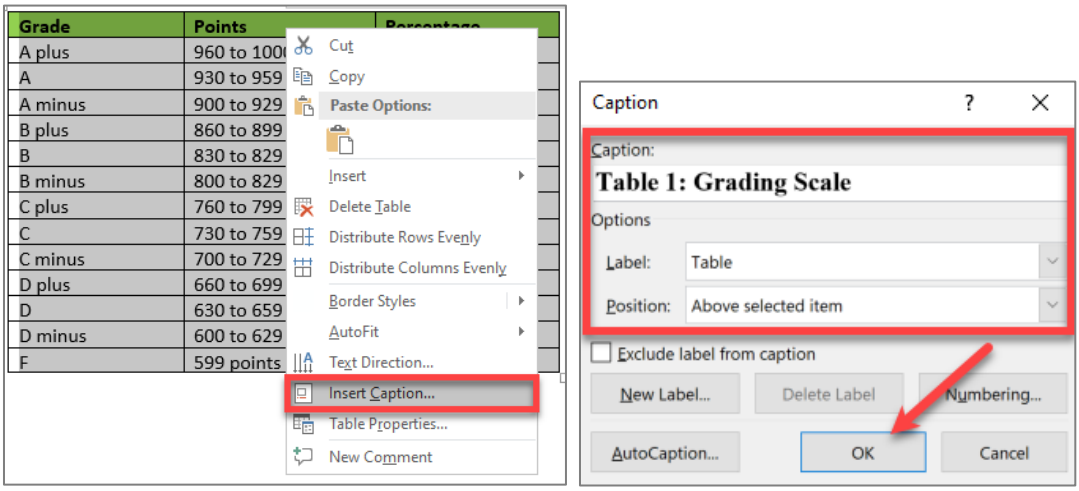
Page 1

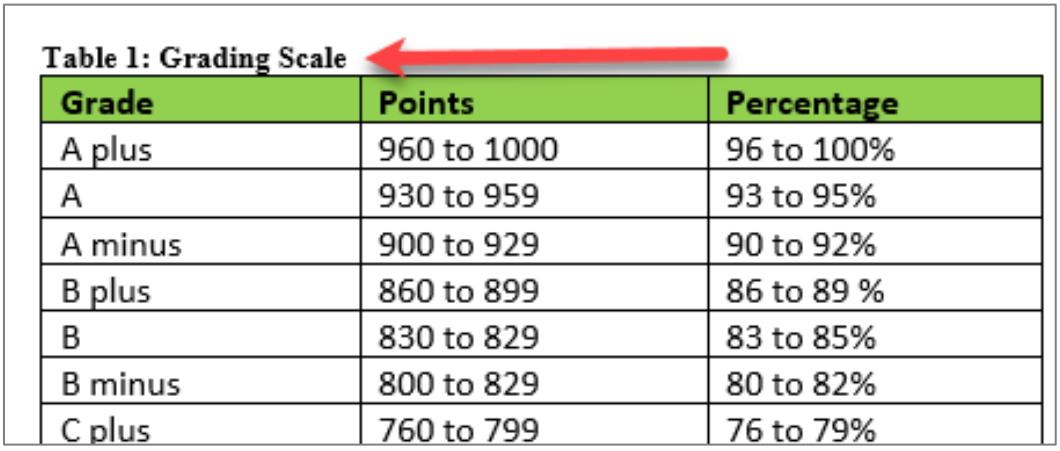
Grade	Points	Percentage
C plus	760 to 799	76 to 79%
C	730 to 759	73 to 75%
C minus	700 to 729	70 to 72%
D plus	660 to 699	66 to 69%
D	630 to 659	63 to 65%
D minus	600 to 629	60 to 62%
F	599 points or lower	59% or lower

Step 4: Table – Insert Caption

Adding a caption or summary of your table is universal and accessible for everyone.

- Select the table, then right-click to select **Insert Caption** or
- Go to **References** tab, then select **Insert Caption**
- In the popup window, type the title of the table in the **Caption** textbox
- In the **Label** textbox, select **Table**
- **Position** textbox, select **Above selected item** then select **OK**





How do screen readers read tables?

Tables have a logical reading order starting from left to right, top to bottom. With Header Rows is enabled in Table Properties, screen readers will announce when the tables are present.

Example 1: Grading scale with table format

Grade	Points	Percentage
A plus	960 to 1000	96 to 100%
A	930 to 959	93 to 95%
A minus	900 to 929	90 to 92%
B plus	860 to 899	86 to 89%
B	830 to 859	83 to 85%
B minus	800 to 829	80 to 82%

Note: Screen readers do not know what the – symbol represents (minus, hyphen, en dash or em dash) so screen readers will not read it. It is always a good practice to spell the word and spell out any abbreviations or make a reference to your abbreviation when used for the first time.

Screen readers announce a table with a number of rows and columns. Screen readers repeat header rows associate with data cells.

table with 7 rows and 3 columns
row 1 Grade column 1
Grade
Points column 2
Points
Percentage column 3
Percentage
row 2 Grade column 1
A plus
Points column 2
960 to 1000
Percentage column 3
96 to 100%
row 3 Grade column 1
A
Points column 2
930 to 959
Percentage column 3
93 to 95%
row 4 Grade column 1
A minus
Points column 2
900 to 929
Percentage column 3
90 to 92%
row 5 Grade column 1
B plus
Points column 2
860 to 899
Percentage column 3
86 to 89%
row 6 Grade column 1
B
Points column 2
830 to 859
Percentage column 3
83 to 85%
row 7 Grade column 1
B minus
Points column 2
800 to 829
Percentage column 3
80 to 82%
out of table

Example 2: Grading scale without table format

A+ = 100	B+ = 89	C+ = 79
A = 95	B = 85	C = 75
A- = 90	B- = 80	C- = 70

Screen readers read line by line like this:
A+ = 100, B+ = 89, C+ = 79
A = 95, B = 85, C = 75
A = 90, B = 80, C = 70 (Screen readers do not know whether - symbol is minus, hyphen, dash, en dash or em dash so it will not read it.)

Recommend this format

A plus = 100	A = 95	A minus = 90
B plus 89	B = 85	B minus = 80
C plus 79	C = 75	C minus = 70

Now screen readers read line by line in an appropriate format that makes sense to sighted and non-sighted students.

A plus = 100, A = 95, A minus = 90
B plus = 89, B = 85, B minus = 80
C plus = 79, C = 75, C minus = 70

Five Table Examples

Use tables to organize data not format information. Never use table for layout. **Avoid merging cells, split cells, nested within a cell, and blank cells.** Simple tables are easier to interpret for all students and screen readers.

An example of a simple table with header row and data.

Header 1	Header 2	Header 3
Data 1	Data 2	Data 3
Data 4	Data 5	Data 6

Example 1: Avoid use table for layout like this format without header row

Course Information	
Course: Accessibility 101	**Course Number:** 12345
Class Days: Tues and Thursday	**Class Times:** 9:00 to 11:45am
Semester: Future 3000	**Class Location:** Library 100

Best Practices: use tabs position or columns format

Course Information

Course: Accessibility 101
Class Days: Tues and Thursday
Semester: Future 3000

Course Number: 12345
Class Times: 9:00 to 11:45am
Class Location: Library 100

Example 2: Avoid merged cells table heading "Grading Scale" into the table

Grading Scale		
Grade	**Points**	**Percentage**
A +	960 - 1000	96 - 100%
A	930 - 959	93 - 95%
A -	900 - 929	90 - 92%

Best Practices: Move the heading Grading Scale out of table instead of merging cells.

Grading Scale

Grade	Points	Percentage
A plus	960 to 1000	96 to 100%
A	930 to 959	93 to 95%
A minus	900 to 929	90 to 92%

Note: Screen readers do not know what the – symbol represents (minus, hyphen, en dash or em dash) so screen readers will not read it. It is always a good practice to spell the word and spell out any abbreviations or make a reference to your abbreviation when used for the first time.

Example 3: Avoid merged cells like this format

Reading Assignments		
Week	**Topics & Activities**	**Due Date**
1	Reading 1	7/22/2021
2	Reading 2	7/23/2021
Writing Projects		
4	Writing 1	8/1/2021
5	Writing 2	9/1/2021

Best Practices: Separate two tables with header rows

Reading Assignments

Week	Topics & Activities	Due date
1	Reading 1	7/22/2021
2	Reading 2	7/23/2021

Writing Projects

Week	Topics & Activities	Due date
4	Writing 1	8/1/2021
5	Writing 2	9/1/2021

Example 4: Screen readers may have difficulty in correctly reading the following merged cells.

Reading Assignments

Week	Topics & Activities	Due date
1	Reading 1	7/22/2021
	Reading 2	
2	Reading 3	8/2/2021

Un-merged the cells and duplicating information in cells can be read more clearly.

Reading Assignments

Week	Topics & Activities	Due date
1	Reading 1	7/22/2021
1	Reading 2	7/22/2021
2	Reading 3	8/2/2021

Example 5: Incorrect table with merged cells

Date	Student 1		Student 2	
August 2, 2021	Result 1	Result 2	Result 1	Result 2
September 2, 2021				
October 2, 2021				

Correct table without merged cells

Student 1

Date	Result 1	Result 2
August 2, 2021		
September 2, 2021		
October 2, 2021		

Student 2

Date	Result 1	Result 2
August 2, 2021		
September 2, 2021		
October 2, 2021		

Table Colors

Avoid using color as the only means to convey information. For example, in the table below, the complete and incomplete items may appear the same to someone who is color blind:

Example 1:

20/20 vision:

Project	Due Date	Completed
Project 1	March 15, 2020	X
Project 2	April 15, 2020	X
Project 3	May 15, 2020	X

Color blind:

Project	Due Date	Completed
Project 1	March 15, 2020	X
Project 2	April 15, 2020	X
Project 3	May 15, 2020	X

Best practices: A better option would be to provide another way of conveying information not just color alone and screen readers:

Project	Due Date	Completed
Project 1	March 15, 2020	N or No
Project 2	April 15, 2020	Y or Yes
Project 3	May 15, 2020	Y or Yes

Example 2:

20/20 vision:

Project	Status
Project A	
Project B	
Project C	

In Progress: Pending: Completed:

Color blind:

Project	Status
Project A	
Project B	
Project C	

In Progress: Pending: Completed:

Best Practices: Combine color cells and status labels.

Project	Status
Project A	**In Progress**
Project B	**Pending**
Project C	**Completed**