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**NOTE: This is a long document, I would recommend utilizing the navigation pane to find what you are looking for. -- See page 4 if you don’t know anything about that.
**If you find mistakes or want something more clarified feel free email me (jenna-stoltzfus@uiowa.edu).**

**Headings:**

By making text a heading, it will be included into a table of contents when made through the reference tab (instructions later). It is also a way to change your caption text style.

Changing text to a heading

- Select Text that you want to change to a heading (Ctrl Left Arrow Selects the word left of your cursor)
- In the home tab and text selected click on heading 1 or heading 2 depending on what you need. (heading 2 will appear differently than heading 1 in the table of contents)

Modifying Style settings for current and future documents

- In the home Tab, Right Click on the text style you want to change
- Select Modify
• Make the changes you want, **Check New Documents based on this template if you want to apply the change to new documents. This will be the new default when you open word.**

Important types of styles

• Insure you and your lab group use the same styles throughout the report: **THIS WILL SAVE A LOT OF TIME WHEN COMPILING/EDITING THE REPORT!!**

• Normal: Default text, it would be a good idea to insure that everyone in your lab group has the same settings for normal to make compiling easier.

• Heading 1: Use for main section headers (Summery, Introduction, Theory, Ect)

• Heading 2: Use for subheadings were applicable (Appendix, Experimental procedure)
• Caption: Use for captions for tables and figures. If you insert caption as explained later, this format will automatically be applied to that text. This style can be found by clicking on the double arrow shown below.

You can also create new styles by clicking on the ‘create a style’ link as seen above.

**Navigation Pane**

Finding Navigation Pane

• Keyboard shortcut: Ctrl F

• Click on View in the toolbar

• Check the box next to Navigation Pane

• A side bar will appear on the left with the different headings/subheadings you have made.
Using Navigation Pane

- When you click on one of the headings in the side bar, the document will go to the beginning of that heading.
- You can also search by pages or any word as well

**Table of Contents**

Inserting Table of Contents

- Text where styles have been changed to headings will appear in this table of contents with the corresponding page number.

- Click on the References tab

- Click on Table of contents in the corner

- From the drop down select the desired table of contents and it will be inserted where your curser is.

- You can format that table to look the way you want it by editing it or using the paragraph settings on the home tab.
- You can change the heading on the table of contents by modifying the TOC heading in the styles. This option will only appear once you have inserted a table of contents.

Updating the Table of Contents

- The table is updated by clicking on Update Table. You must have your curser selected in the table.
  - Update page numbers only: will only change page numbers of headings and will not change any formatting you have done to the table of contents.
  - Update entire table: this will change any changes you have made in the document (adding headings, changing heading titles, formatting).

- You can also highlight the entire table and click update field, this will do the same thing as updating entire table.
Captions

How to put in captions

- Following these steps will help with formatting!!! If you add a figure/table in front of other tables you will not have to change the numbers manually, it will do it automatically.

- Right click on the table/figure

- Select Insert Caption
• Select the type of label from the drop down.

  ![Caption dialog box](image)

  - Insure that the position will be in the correct position: Figure - below, Table - above.

  - If you want to make your own select New Label and put in all relevant/necessary information

  - You can add the description in the caption setting box or you can click OK and type next to where it displays on the document

  - Caption should be centered above/below table/figure

  - To update this information select text to update, right click and select update field. I would recommend saving before doing this if you have selected the entire document.

Referencing table/figure in text

• Go to the References tab

• Click on Cross-reference

  ![Cross-reference ribbon](image)

  - From the Reference type drop down bar, scroll down to find the table/figure.
• From the Insert reference to drop down, select Caption title and number only

• Select which figure/table you want to insert from the ‘for which caption’ box

• Shortcut to open the cross reference box: Alt S RF (press keys one at a time). This box can remain open all the time if desired.

• To update text, Select desired text and right click and select update field. I would recommend saving before doing this if you are selecting a whole document.

Auto captions

• This feature will allow a caption to appear whenever a table or figure is inserted into a document. This could be useful sometimes and annoying other times.

• Right Click on a table/figure and click on insert caption

• From this box, click on Auto caption

• Select the Items that you want to generate auto captions for and the type of caption to generate.
- Each time you select an item, you select the label and position.

- Select OK, and this should carry over from document to document.

Auto center your captions

- All Figures/tables should be centered on the page and the captions should be centered above the table/figure. You can format this once for all documents

- As described in ‘Headings - Modifying style settings..’ go to the settings box to modify the caption style.
Select the Center Justified button and then select ‘new documents based on this template’ and your captions will always be centered on the page.

Equations

• Equations are a little more difficult to add captions to because you want the number next to the equation and not above or below. You can however move the caption to where you want it. This may be useful since you have to talk about equations in the results and discussion and if the numbers change it can be difficult to insure that you corrected all the in text references.

• I format my equations using a table as described below in Equations so I will start there.

\[ y = mx + b \]
• You cannot write click to select insert caption on an equation box, instead you must go to References in the toolbar and select insert caption. (Alt S P). Or you can insert a caption on the table as you would for a normal table.

• You want to insert a (#) next to the equation, but you also want to be able to insert just the number when referencing in the text (equation 1). So how I did this was to make a new label with a space as the heading and then the number would be inserted and I could manually put in the ( ) around the number. (This seems like a lot of work but you only have to do it once as you will copy and paste the later equations.)

• After selecting this label, it should appear above or below what you have selected (depending on the settings your used when making a new label)

\[ y = mx + b \]

1

• You can then cut and paste the caption into the right box in the table and make it right justified so that it follows the correct format.

\[ y = mx + b \]
• You are then able to insert the corresponding equation number when referencing a specific equation in the text. (i.e. equation 2) following the same steps as described in ‘Captions - Referencing table/figure in text’

• You may need to fix parenthesis that it decides that you might want. This will go back when updating field. You can put spaces between the number and parenthesis when formatting the equation box.

• Also as described later, the most efficient way to insert a new equation is to copy and paste a new one. Then if you update the field as described earlier, it will adjust the equation number on the copied equation. The table shown below was done as described with updating the field and changing the equation.

\[ F = ma \] (3)

**Tables/figures**

How to reference Tables and Figures

• Tables and figures should be introduced before they are found in the body of the report. You should describe the table/figure and then when an appropriate paragraph break occurs, the table/figure should be inserted below the paragraph that introduced the table/figure.

• Tables and figures should be introduced similar to ..”shown in Table 1…”

• You can insert “Table 1”as described in ‘Captions - referencing table/figure in text’

Keeping a Tables on one page

• Tables should never be split between two pages unless it is an exceptionally large data set (raw data) and then it should be put in the appendix.
• Select the entire table, and then with the table still selected click on the paragraph arrow on the home tab.

• On the Line and Page Break Tab, select ‘Keep with Next’. Then click ok.
Equations

Using a Table

- I have found that the easiest way to insert a table and have the equation number next to it is to insert a 3 column, 1 row table. Or a 2 column 1 row column if the equation is long.
- Insert a table by going to the insert tab, Click on Table, and select the 3 across one down.

- Then to get rid of the table borders, right click on the arrow on the left hand corner of the table, You must hover over the table for it to appear.

- When you right click, this toolbar should appear.

- Select the dropdown menu circled in red, and select no borders.
• The table should appear as shown below. The dotted lines will not print. You should center the table (Ctrl E)

\[ y = mx + b \]

• With your cursor in the middle column, go to insert, equation.

\[ y = mx + b \] (4)

• Type the equation into the box that says type equation here. You can then insert a caption in the right box as described earlier, or you can manually put it in with a right justified.

• Then when we want to insert another equation, just copy this equation table and paste.

• Change your equation and update the caption number.

• For a 2 column 1 row table, make the right column extremely small and insert the equation in the left column.

\[ y = mx + b + C + D + E + F + G + H \] (5)

How to reference

• Equations should be given in sentence form, with an opening to the equation, the equation, and then an explanation of the variables. ALL one sentence.
Bibliography - THIS IS PRETTY COOL

Making a new source

- Go to References tab, click Manage Sources, Insure the style is APA

- Click new source, change the source type to what you have, and enter in necessary information, click save

- All sources you enter will be saved in the master list, so you do not need to enter sources in each time. To move them to your current list, Click on the source and select copy

- The sources on your current list will be inserted into the bibliography as explained later, as well as be available for in-text citations.

Inserting in-text citation

- To insert an in-text citation, go to references tab, Click Insert Citation
• From the dropdown select the desired citation to insert.

• THAT’S IT.

Inserting Bibliography

• To insert a bibliography, go to references, Bibliography

• From the Drop down select the type of bibliography to enter.

• THAT’S IT, it is formatted correctly.

• Select and click update table to update

Nomenclature Table

Excel

• Enter information in excel and then copy and paste the table from excel, hid the borders explained when inserting an equation. Example shown below

<table>
<thead>
<tr>
<th>Variable</th>
<th>Name</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>C_{ES}</td>
<td>Concentration of enzyme substrate</td>
<td>mol/L</td>
</tr>
<tr>
<td>C_{ET}</td>
<td>Concentration of all enzyme</td>
<td>mol/L</td>
</tr>
<tr>
<td>CF</td>
<td>Unit conversion factor</td>
<td>g<em>min/L</em>h</td>
</tr>
<tr>
<td>Cs</td>
<td>Substrate concentration</td>
<td>mol/L</td>
</tr>
</tbody>
</table>
• You can alphabetize the list in Excel by selecting the entire table (what you want to sort by is the leftmost column) going to the data tab, and selecting the button highlighted below.

![Excel Sort Button](image)

Table in Word

• You can insert a table and enter the information in this table as well, just insert a table and type in the necessary information.

• To add another row at the bottom of a table Right-click in the cell where we want to add a row above/below, go to insert and select the option you want.

• Each of these methods has a positive and a negative, Excel is harder to do subscripts and superscripts, but you can alphabetize… pick however you want to do it.

Inserting MSDS

• Save the MSDS as a PDF

• Go to the insert tab, Click on Object

![Insert Object](image)

• Select Adobe Acrobat Document and choose file
Page Numbers

- For Lab report documents the format is as follows:
  - Letter of transmittal (no page number)
  - Title Page (Page i, but not shown)
  - Table of contents (page ii)
  - Table of figures/tables (page iii/iv)
  - Summary (page 1)
  - Introduction (page 2)
  - Rest of headings

- To have this page number system working in one document, section breaks should be implemented.

- After the letter of transmittal, go to page layout, Breaks, and select section break on next page
• This same procedure should be followed after the table of figures/tables, before the summary.

• Go into the header/footer settings and insure that the letter of transmittal says section 1, title page says section 2 and summary says section 3.

• Now you need to unlink the sections. With your cursor in the footer on the title page, go do the design tab under the header, and unselect link to previous.

• Repeat this procedure with your cursor in the footer on the summary page.

• With your cursor on the title page, go to insert, page numbers and select the bottom right corner.
• This will insert ‘2’ on the title page and continue from there on.

• Under the header/footer tools and design, select the box that says Different first page while in the title footer. **YOU DO NOT NEED TO DO THIS FOR THE NEXT SECTION.**

• This is only to eliminate the page number on the title page and still have the table of contents page ii.

• Next while in the table of contents footer, go to the insert tab, page numbers, and select format page numbers.
• Change the number format to roman numerals, and select start at i (not continue from previous section.

• Go to the summary footer and insert page number as you did on the title page, it should start at page 4.

• Go to format page numbers as you did earlier and select start at 1.

• You report should be good to go for page numbers! Your table of contents will also reflect these page numbers.

Hints

• If you are doing the same formatting thing over and over -- there is likely and easier way to do it. Ask someone or just play around until you figure it out.

• If you still can’t figure it out. Google it.

Easy Shortcuts

For PC! (Ctrl changes to Command for Mac)

Alt: Navigation (only works on PC) There are many others then listed below, these are just common things you do. Hit alt and shortcut keys will appear.
Alt N U: Insert Symbol
Alt N T: Insert Table.
Alt H 5: Subscript
Alt H 6: Superscript
Alt S RF: Cross Reference
Alt S C: Insert Citation

Ctrl A: Select all text in document
Ctrl Z: Undo
Ctrl R: Right Justified
Ctrl L: Left Justified
Ctrl E: Center text
Ctrl +: Subscript (same shortcut to go from subscript to normal text)
Ctrl Shift +: Superscript (same shortcut to go from superscript to normal text)
Ctrl F: Opens navigation pane to search document for word/phrase.
Ctrl Shift Left Arrow: Selects word to the left of your curser, keep selecting words, keep ctrl held and hit left arrow as many times as you want.

Ctrl B: Bold Text
Ctrl I: Italic
Ctrl U: Underline
Ctrl C: Copy
Ctrl X: Cut
Ctrl V: Paste
Ctrl S: SAVE HIT THIS OFTEN!