Using this Template

Important: Delete this section before finalizing your thesis/dissertation!

This template is provided for graduate students of South Dakota Mines to more easily construct their thesis or dissertation formatting to meet graduate school requirements.

This document is carefully formatted using Word styles. If you aren’t familiar with **styles**, you can easily mess up the formatting so that it no longer works. Search the Internet for tutorials or videos, as you prefer, to get more familiar with styles before you try to use this template. Various sections have additional tips and instructions to help you. Make sure you delete them before adding your own material.

It is very important that you always work to preserve the styles already set up in this document. Keep these tips in mind.

Open the Styles options pane from the Home ribbon to easily see and select styles. Open the Navigation pane to easily jump between chapters of your document.



Always use the Heading styles for section and chapter headings, to ensure that they will be included in the Navigation Pane and the Table of Contents.

If you are copying text into this document from another one, always be sure to paste using “Keep Text Only”. Otherwise, you may infect the document with new styles that won’t match the ones set up for you, and it will complicate your editing and consistency of the document.

If you wish to make a formatting change, use an existing paragraph or font style. For example, if you want to boldface a term, use the “Strong” style instead of selecting the B (Boldface) on the Font tab.

If you need a paragraph or font style that doesn’t exist, you can create and name one. Usually you will want to base it on the Normal style if it needs to be double-spaced or No Spacing style if it needs to be single-spaced. Be sure to adhere to the Grad Ed formatting requirements if you make new styles, however.

If you don’t like how a style looks, for example, if you prefer a different headings font or size, use the Styles tab to modify the style rather than highlighting the text and making changes on the Home tab.

It is recommended that you use Word’s automatic figure, table, and equation numbering to help you build the lists of these items in the front matter.

If you are not familiar with these tools, this site hosted by the University of Michigan has excellent instructions for using Word techniques to format your thesis. Just keep in mind that their format requirements may differ from ours.

<https://guides.lib.umich.edu/c.php?g=1114879&p=8128983>

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Abstract

Put your abstract here. It should be single-spaced, just about the only part of this document that is! The abstract should use the Abstract style (open the Styles pane to see it and the other styles you should be using).

A good abstract has a very brief introduction that highlights some background and the importance of the work. The rest should describe abbreviated methods, results, and conclusions from the completed work.

It is very important to include the **major results and conclusions** in the abstract. Some students make the mistake of only describing what is planned to be done or what the paper is about.

Keep in mind that many people will ONLY read the abstract, usually in a scholarly database or search engine, and will not bother getting the full paper. That is why it is important to give a complete, if abbreviated, description of the work.

Usually you write the abstract LAST. That is the best way to make sure it reflects the entire work.

If you are using the journal style, this abstract should reflect the contents of all of your journal articles, not as mini-abstracts forced together, but as a coherent description of the work as a whole. Each journal article will have its own abstract as well.

Acknowledgements

Delete this paragraph and then type your acknowledgements in its place. Be professional. Be sure to acknowledge funding sources that supported the research including the grant number (ask your major professor if you don’t know). This section is double spaced and uses the Normal style.

Table of Contents

Note: This table of contents is automatically generated from your headings, which is why it is important to use the Heading styles to start each chapter and subsection. To update this table, open the References ribbon, find the Table of Contents group, and select Update Table. Delete this explanation before finalizing your document!

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List of Tables

The list builder includes the entire caption. After you are sure you have updated the list for the last time, carefully edit any long text, leaving only the short title. Delete these instructions.

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List of Figures

The list builder includes the entire caption. After you are sure you have updated the list for the last time, carefully edit extra long text, leaving only the short title. Delete these instructions.

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List of Equations (optional)

If numbering equations, be sure to number them using the caption tool, selecting the Equation type. Then you can build the list automatically.

[Equation 1‑1 3](#_Toc159841713)

[Equation 1‑2 3](#_Toc159841714)

List of Acronyms (optional)

No tool for this. Just list your acronyms, in alphabetical order, followed by the descriptions. This list uses the Acronym List style. Delete these instructions and the first two acronyms.

SDSM&T South Dakota School of Mines and Technology

STEM Science, Technology, Engineering, and Math

# Introduction

Chapter 1 usually contains your Introduction and Literature Review. Some disciplines may separate these sections or add additional sections such as Study Area. Adapt as needed.

If you are copying material, you are advised to Paste As Text to avoid creating new unwanted styles and messing up the formatting. Or select all of the material and select the Normal style to change it. Note that both of these steps will wipe out special formatting such as boldface, italic, super/subscripts, and so on. If you use a lot of such formatting, it is suggested that you type and edit directly in this document to start with.

If your pasted text also has sections, you will need to reapply the section headers. If it has figures and captions, they will need to be updated also. Generally it is better to paste small portions of text within single sections, and to paste each figure/table separately and then build the captions.

## Subsection header

If you need to add subsections and additional headers to your document, first start a new line and then select Heading 2. For additional sublevels, select Heading 3, 4, etc. If you don’t like the formatting, be sure to edit the Headings in the Styles tab rather than editing the text on the page! Using numbered sections is helpful but is not required.

### Subsection header

This is the Heading 3 subsection header style.

#### Subsection header

This is the Heading 4 subsection style.

## Examples of figures and tables

Delete this section after you have added some of your own figures and tables to this template. It is recommended that you use the Word automatic captioning so that it can build your lists of tables and figures for you.

### Adding figures and captions

First, add your figure to the document. Then right-click it and choose Add Caption. Select the type (Figure, Table, Equation), check the location, and add a short title (space is limited in this box). If the chapter number is not already included, click the Numbering button and check the box to include the Chapter number (from Heading 1). After you click OK, add the remaining caption text if needed.



Figure ‑. The Styles pane. The Styles pane is opened from the Home ribbon Styles group and is a convenient place to view and, if needed, update your styles. Keep an eye on this pane. If you copy in text from another document, you may find new styles such as Normal + Font Calibri. You want to avoid creating new styles if you can, because it complicates your formatting.

Note that the Lists of tables and figures in the front matter should include only a short title, not entire paragraph-long captions with (a) – (e), etc. It looks silly to have long captions without the figure or table to consult. The lists will be built with the long caption, but at the final editing end, after updating the page numbers for the last time, you can carefully edit out the extra text from the figure and table lists.

A Caption style was added to the Styles pane when this first figure was created. It is already set up as it needs to be. For a thesis, it is recommended to always use the In-line text wrapping format for your figures and tables, so that the text stops above the figure/table and starts again below it, as shown here. Other types of word wrapping are likely to cause pagination issues. As you edit, you may find issues with partially blank pages to make the figures fit. You can move text or figures if needed at the very end, to fix these problems. If you move them too early, you may have to move them again as more text is added or deleted.

The same tool used to caption figures and tables can also be used for equations. Just select the Equation type instead.

Equation ‑. Area of a circle

$$A=πr^{2}$$

And here is another equation. Those of you who know how to use the Word equation editor must be very smart! If you prefer to have your numbers on the same line as your equation, though, you will have to number them yourself and produce your list manually.

Equation ‑. Binomial theorem

$$\left(x+a\right)^{n}=\sum\_{k=0}^{n}\left(\genfrac{}{}{0pt}{}{n}{k}\right)x^{k}a^{n-k}$$

Figure 1-2 shows a document in the Navigation pane, which lists the headings. It is a convenient way to move around your document and to check for inadvertent blank lines with a Heading style. If you want to easily find the Lists in the front matter, you can use the Results tab of the Navigation pane to search for “List of”.



Figure ‑. The Navigation pane. The Navigation pane is a handy way to jump about in your document. It also helps you see if you have inadvertently added a blank line with the Heading style.

### Adding tables

Adding tables captions is similar to adding figure captions, except you change the type to table and put the caption above the table instead of below. My favorite way to create tables is to do the formatting in Excel to get it the way I want and then paste in the document. You will need to put the cursor in the table handle cross-hairs to caption the table.

Table ‑. A sample table with fake data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Row Labels | Column 1 | Column 2 | Column 3 | Column 4 |
| Row Label 1 | 1 | 10 | 100 | 0.1 |
| Row Label 2 | 2 | 20 | 200 | 0.2 |
| Row Label 3 | 3 | 30 | 300 | 0.3 |
| Row Label 4 | 4 | 40 | 400 | 0.4 |
| Row Label 5 | 5 | 50 | 500 | 0.5 |

As you do your final review, check each table to make sure that it does not get split by a page break. To fix, move text above or below to fit around it, or add page breaks to put the table on its own page, if it is big enough.

### Landscape figures or tables

What if you have a very wide figure or table that needs to go on a landscape page? You will need to use section breaks to accomplish this task. A section break allows each section to have different formatting, e.g. portrait in one section and landscape in another. Section breaks can occur within a page or can be created with a new page. You will usually want to use the Next Page section break.

Start a new paragraph after the last text before the landscape page. On the Layout ribbon, choose Breaks > Next Page Section break. Type Landscape Page, just so you don’t get lost, press enter, and create another Next Page section break. Type Portrait page. Return to your landscape page and set the Orientation to Landscape. Insert your figure/table or caption. You will also need to adjust the header/footer so that the page number appears in the right location and orientation. See this web site for more help, except remember that Mines calls for the page number on a landscape page to appear the same as the portrait pages after the landscape page is rotated for binding.

<https://guides.lib.umich.edu/c.php?g=1114879&p=8128999>

Figure 1-3 shows the orientation of the page numbers on different page layouts.



Figure ‑. Orientation of the page number (5) on different page layouts: (a) on a regular portrait page, (b) on a landscape page, and (c) on an 11x17-inch foldout page.

Finally, we will insert a second table to illustrate the look of the table list in the front matter of this document.

Table ‑. A repeat of the first table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Row Labels | Column 1 | Column 2 | Column 3 | Column 4 |
| Row Label 1 | 1 | 10 | 100 | 0.1 |
| Row Label 2 | 2 | 20 | 200 | 0.2 |
| Row Label 3 | 3 | 30 | 300 | 0.3 |
| Row Label 4 | 4 | 40 | 400 | 0.4 |
| Row Label 5 | 5 | 50 | 500 | 0.5 |

# Title

Reprinted with permission from [cite journal publication reference]. This paragraph uses the “Journal Reference” style. Delete this paragraph if not needed.

## Abstract

If you are using the journal style, put your abstract in this subsection. If not, change the title to the title of your first subsection instead.

## First subsection

If you are using the **journal style**, this is probably your first paper. Structure it like a standard journal article with sections such as Introduction, Objectives, Methods, Results, Conclusions. Use the Heading 2 style for each section and Heading 3 and Heading 4 styles for subsections. Include References for just this paper in the chapter.

If you are using the **traditional or single-paper style**, this chapter is usually your Methods chapter. Do not include an abstract or references in the chapter.

# Title

Reprinted with permission from [cite journal publication reference]. This paragraph uses the “Journal Reference” style. Delete this paragraph if not needed.

## Abstract

If needed

## Subsection

# Title

Reprinted with permission from [cite journal publication reference]. This paragraph uses the “Journal Reference” style. Delete this paragraph if not needed.

## Abstract

If needed, otherwise start section.

## Subsection

If you need another chapter before your conclusions chapter, start a new line at the end of this chapter and select the Heading 1 Style to begin it.

# Conclusions

If you used the traditional style, describe your conclusions and recommendations for future work here.

If you used the journal style, this chapter should contain an overview of the conclusions from **all** your individual papers and a reflection on the overall conclusions and future work recommended.

## First subsection

Bibliography or References

This section contains either your bibliography (all sources consulted for your work) or your References (all sources actually cited in your work). Be sure to title the section appropriately based on which is presented.

If using the journal style, you are encouraged to put all references from all papers in this section. However, if you used the format of numbering references [ref#] in your papers instead of the (Author(s), Year) format, a full list of references is not possible because the numbers are duplicated in each paper. In that case, simply list the references from the chapters NOT representing papers, e.g. your introduction and conclusions.

For either the traditional or journal style, use the “References” Word style to get the proper format. The references may be formatted in the manner recommended by your committee, but it should be consistent throughout your thesis/dissertation. The citations here are only examples. To save space, a line spacing of 1.5 may be used for the references style, as shown here, instead of double-spacing.

Smith, R.U. and Wesson, 1995, The history and importation of the cappuccino from Italy to the United States, J. of Coffee 45:6, pp. 341-358.

Smith, R.U. and Wesson, 1995, The history and importation of the cappuccino from Italy to the United States, J. of Coffee 45:6, pp. 341-358.

Smith, R.U. and Wesson, 1995, The history and importation of the cappuccino from Italy to the United States, J. of Coffee 45:6, pp. 341-358.

Appendix A

If using the journal style, and you have published or accepted papers included in your thesis/dissertation, put your letters or other documentation of permission to reproduce the article(s) in this appendix.

If not, you may use appendices, if needed, to present material that is too long or not important enough to be presented in the main body, such as long data tables, programming code, photo archives, etc. Keep in mind that you can also provide electronic copies of spreadsheets, code files, map pdfs, etc with your document instead of printing them, and it may save you money by reducing the number of pages. Consult your committee if you have questions about what you should include as text or may include as a file.

If you don’t need any appendices, delete the section title above.

If you need additional appendices, go to the end of the last appendix and choose Heading 1 to Start a new appendix and label it with the next letter. If you prefer not to have the chapter number showing in your appendix title, or in any subsections, highlight the heading in the text (not the styles box), choose the Multilevel List icon in the Paragraph group on the Home ribbon and select None. This action will turn off the number for just that heading. You need to repeat the action to remove numbers from other headings.

Use existing styles for your appendices or create new ones if needed.

Vita

Put your brief bibliography here. It is not necessary to include your birthdate or birthplace if you are concerned about identity theft.