REFERENCE GUIDE FOR THE CSM THESIS
LaTeX TEMPLATE

by
A fellow Graduate Student

TABLE OF CONTENTS

CHAPTER 1
INTRODUCTION

This document was put together to explain the functionality of the CSM LaTeX Thesis template, set by the 'csm-...-.sty' files. The underlying code in the .sty files should not need any editing unless specified in this document. Please be sure to look through this document before attempting to make your own adjustments to the code.

Read along with the comments made in the example LaTeX .tex files to follow what you should do in some section. Please note that this Thesis Template is made to work with pdfLaTeX and not optimized for any other Tex building tools. You may try to use LaTeX in this way but there is no guarantee it will work without any issues.

This guide starts with an **Easy Starter's Guide**.This chapter focuses on helping you get started such that you can go and get to writing as quickly as possible. This chapter is meant for people who are new to LaTeX and still need guidance on setting up a project. The best way to get started is through Overleaf, an online LaTeX building tool.

The following chapters focus on **General Formatting Guidelines**, **Front Matter**, **Body Matter**, **Back Matter**. In these chapters the Office of Graduate Students (OGS) thesis guidelines are presented in *italics*. After the listing of the OGS guidelines I have stated if these parameters are set by the template (most are), if they required user input, or state option for you to change if you wish (font size, line spacing).

There are two chapters that focus on Figures and Tables in more detail as they can be difficult to format. Possible applications of these chapters include but are not limited to landscape mode figures and tables, or multi-page tables. The last chapter in this handbook makes a note on some of the package requirements for the template.

This user manual is not here to teach you LaTeX; be sure to go to the internet for any pressing questions you hold that are not addressed here. There is a LaTeX help guide link on the OSG Thesis Writer's Guide that you can use to learn LaTeX. You might find it useful to make a copy of the example dissertation files for later reference. I hope you find this manual useful.

1.1 A Quick Note About the Author

The template and guide were made as part of a 'Template Competition'. I am a current Graduate Student of the physics department, and thought it would be fun to give this a try. I based a lot of the code off of an 'unofficial' template that has been around for several years, written and maintained by Erich E. Hoover and his colleagues (Abram Van Der Geest, Darick Baker). I hope you find the LaTeX template and this guide useful.

After the competition the template and help guide have gone some formatting correction and should reflect the formatting guides set in Fall 2020. Enjoy the writing process!

- Claudia A.M. Schrama

CHAPTER 2
EASY STARTER'S GUIDE

If you are new to LATEX and are not sure where to start then this chapter is for you.

2.1   Before you start

This guide assumes that you have at least one way to build LATEX files with pdfLaTex. For people that consider themselves a 'beginner' with LATEX I advise you to start writing your document in Overleaf. If you are better versed with LATEX then you may skip this chapter and start by looking though the 'mines-example-dissertation.tex' and the following chapters that form this guide.

Here I will talk you through two ways to get the template loaded and ready to edit in Overleaf. You should have created an account and be logged in to follow along either finding the template in the Overleaf gallery or uploading from zip files found on graduate student government website.

2.2   Find Template in Overleaf Template Gallery

The Colorado School of Mines is maintaining a copy of the template that is directly available in the overleaf template gallery. Sign into your Overleaf account. Press "New Project", top left of screen. At the bottom of the list of options press "View All" to see all the available templates on Overleaf.
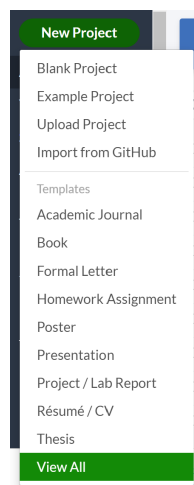
Figure 2.1: Figure showing the drop down menu when you want to make a new project in overleaf.

In the search bar you can type any part of the name 'Colorado School of Mines Thesis Template'. When I search for it with just 'mines' it is the first search result on the list. You can see this in Figure 2.2. there are a few other results that pop up but those are not maintained by Mines. Figure 2.3 Shows the description of the template when you click on it. Here you want to go and press 'Open as Template', this will create the project for you in your overleaf gallery.

For any additional information on what to do next please jump to Section 2.3.1.

Figure 2.2: Search result in Overleaf template gallery for 'mines' showing the top result is the LaTeX Template for Mines Thesis.

Figure 2.3: Description of the Mines Thesis LaTeX template.

2.3   Uploading To Overleaf

Have a download of the example dissertation `.zip` file ready for upload. These files should be available on the same page you found this handbook, `https://gsg.mines.edu/resources/`.

To begin you should create an Overleaf account if you do not already possess one. You can put it either under your personal or mines email. The free account is more than enough for you to get started. Once you have logged in you get a screen that looks like the image below, minus the list of projects that I have.
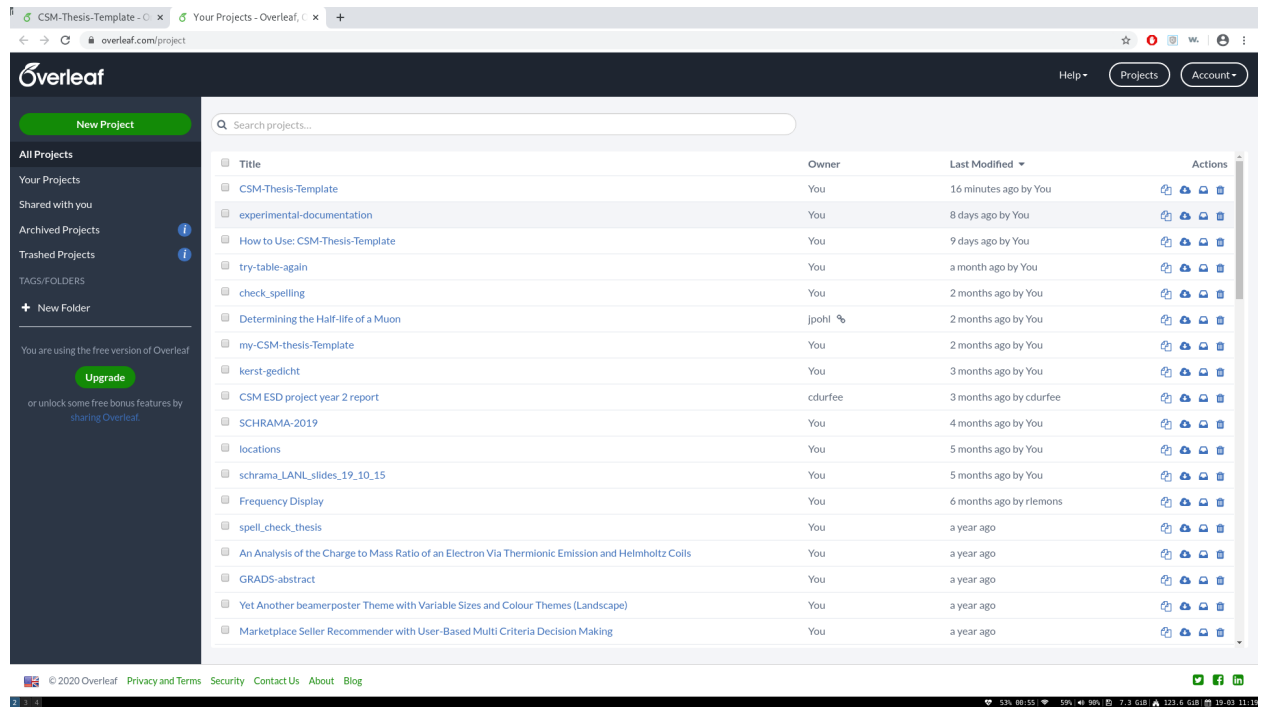
Now to start a new project press the 'New Project' button in the top left corner of the screen. The drop down menu seen in the left of Figure 2.4 should appear.

Click the 'Upload Project' button, third from the top. The next pop-up input screen asks you to select or drop a `.zip` file (Figure 2.4). Here upload the zip file for the Example Dissertation that you have downloaded from the graduate student government (GSG) Website.
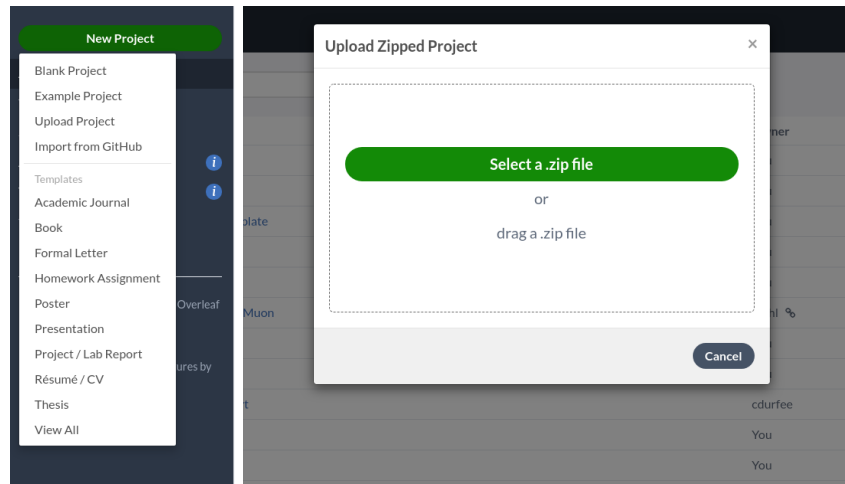
Figure 2.4: Overleaf Menu's

2.3.1 Your Overleaf Project

After you have dropped of chosen the `.zip` file the project will open, and looks like this to the user,
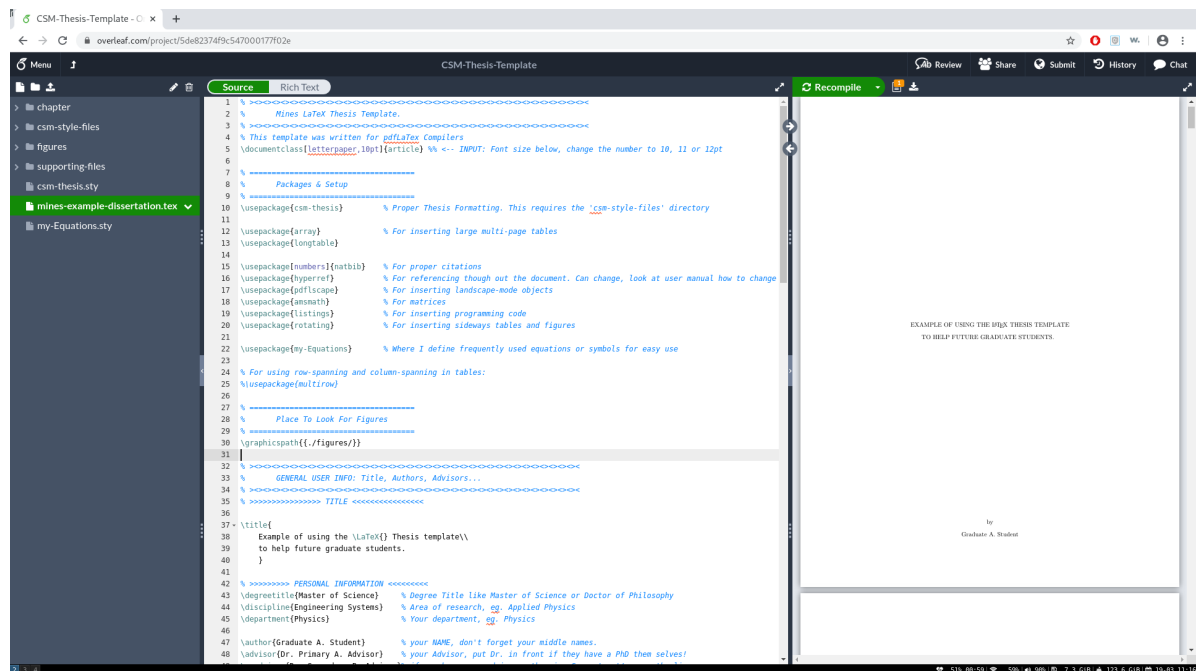
There should be three panels. The left panel is where you can see all the files that are in the project (eg. figures and chapters). The center panel shows the current document that you are working on and where you can edit the `tex` files. The right panel shows the current compiled `pdf` document.

The first time you open the project you may need to select which file to use to build the `pdf` that you see in the right panel. This step will be necessary if no `pdf` pops up in the right panel. To choose the document click on 'Menu' in the upper left corner. The menu in Figure 2.5 should appear.

Go down to the setting that reads 'Main document' and make sure that it is set to the 'mines-example-dissertation.tex'. Once the main document is set, any time you press to 'Recompile' button above the `pdf`
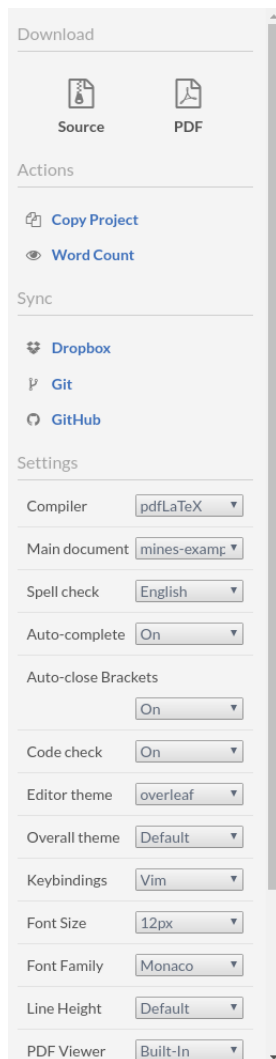
Figure 2.5: Overleaf Menu's

section, it will recompile the main document. Now your Overleaf document is setup for you to start working on it and make it your own.

Note you may change the name of the main document (rename it): make sure that the compiler is looking for your document by setting it as the main document as you just did for the example file.

2.4   Personalizing the Document

In the 'mines-example-dissertation.tex' there are some sections which require user input. Following: to the left are the commands in LaTeX and to the right are the explanation of the command.

`\title{}` The command sets the title for the document.

`\degreetitle{}` The command sets your degree on the signature page.

`\discipline{}` The command sets your degree area on the signature page, eg. Applied Physics

`\department{}` The command sets your department on the signature page, eg. Physics

`\author{}` The command sets your name on the title and signature page.

`\advisor{}` The command sets your advisor's name on the signature page.

`\coadvisor{}` The command sets your co-advisor's name on the signature page.

`\dpthead{}{}` The command sets the department head's name on the signature page.

More information on the above motioned commands can be found in Sections 4.1 and 4.3.

2.5   Starting Your Own Chapter

For now I am going to skip the 'Front Matter' section and move straight to getting you started on your first chapter.

Step 1:   Take a Breath. Get settled. Get ready to write!

Step 2:   Make a text file, in the chapter folder, for your first chapter, example 'chapter-1.tex'.

- Navigate to the left panel and click on the directory named 'chapter' such that is it highlighted
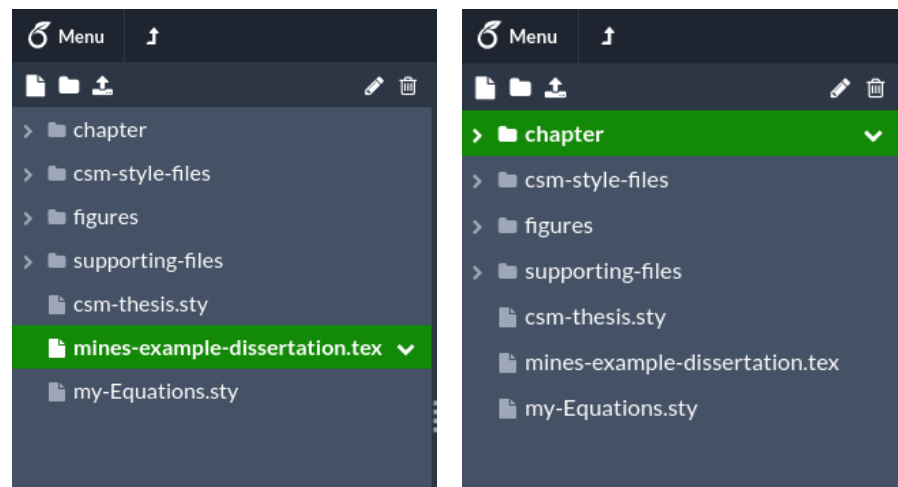
- Click on the '>' to the left of '■ chapter' to show all the files inside the chapter directory.
- Click the '∨' on the right of '■ chapter' to show the drop down menu. Here you can choose to rename or delete the folder. To add a new file, new folder or upload a file.
- Click the 'New File' button. (You can add a file to the project, and not a specific directory by pressing the ⬒ symbol under the 'Menu' button in the left top corner)
- Enter your chapter file name eg. 'my-first-chapter.tex'

Step 3:   Click on the text file you just created, start your chapter with `\chapter{}`, and insert your chapter title in the brackets

Step 4:   Start writing your chapter content. After each heading divider (`\chapter{}`, `\subsection{}`, or `\subsubsection{}`) you must have some text before you go to the next sub-level.

Step 5:   Add your newly created chapter text file into your 'Main Body' of the Thesis template

- Go to 'mines-example-dissertation.tex' (or which ever name you have given it)
- Find the 'Main Body' portion of the file
- Use `\input{my-first-chapter.tex}` to add your chapter to the document

Step 6: Build a `pdf` from the LaTeX file. (In Overleaf it is the 'Recompile' button, at the top of the right panel)

Congratulations, you have made your first steps to a fully well rounded dissertation! Now you can remove any of the example chapters if you no longer want to look at them, or comment them out in case you later want then for reference.

2.6 Starter Tips

Here are some tips which will help you be faster and more organized when writing your dissertation.

1. **Formatting**: you can spend a lot of time on proper figure formatting and making the text and figures fit together nicely. If you are still in the writing or text editing stage, try to leave the figure formatting until the end otherwise you will be doing a lot of reformatting.

2. **Keep Things Separate - FILES**: This counts for a lot of things:

   - Chapters: Place all chapters in the 'chapter' folder/directory. Let each chapter be it's own `.tex` file and add them to the main thesis document using `\input{}`.

   - Figures: Place all figures in the 'figures' folder/directory. You can add sub-directories/folders to organize your figures even more. There is a graphics path set to look for all figures in the 'figures' directory, you can add more in the `\graphicspath{{./figures/}{./my/own/path/to/figures}}`

   - Additional: The bibtex document with any other additional files are in the 'supporting-files' folder/directory. This is also where the list of symbols and abbreviations if kept.

3. **Keep Things Separate - LABELS**: be sure to identify each label with 'what it is', for example `tab:`, `fig:`, `cite:`, `chap:`, `eqn:`, or `apnd:` can be added at the beginning of a label for tables, figures, citations, chapters, equations, or appendix's. This will help you when you use `\ref{}` to reference something. And you will be less likely to double label anything.

4. **Repeating Equations or Groups of Symbols**: if you have a lot of reoccurring equations or symbols (or a bunch of constants that you always group together) then I advise you to make short hand notation with your own new commands. Place these in the `my-Equation.sty` file. Make sure that the command you choose to use does not already exist. A good way to do this is by placing uppercase letters in you new commands. This will speed up your equation writing.

CHAPTER 3
GENERAL FORMATTING GUIDELINES.

The following chapters are explanations of the OGS thesis formatting guidelines, presented in italics. Indications about whether or not the template takes care of them and mentioning of commands that are used, or can be used in the documents.

This chapter focuses on some general formatting guidelines that have been implemented in the template to abide by the Colorado School of Mines Office of Graduate Studies (OGS) thesis guidelines.

3.1 Font

The font must be either in Times New Roman or Arial, have a 10-12 point type. The font size and style must be the same throughout the thesis. The text must be black, and you may not have handwritten symbols or equations in the text. The fonts must be embedded in the document.

The document is in a Times New Roman font style. Arial is not a supported font by LaTeX. The font is automatically black, and the fonts is properly embedded when you build the pdf. You can set the font size at the top of the main document:

`\documentclass[]{}` The command declares the document class `{}` and any specifications `[]`. For the example dissertation the document class is `{article}` and specifications are `[letterpaper,10pt]` to specify the page size and font size. You can change the 10pt, to 11pt or 12pt to change the text size to one you like best. The font size will apply to all text in the thesis (title, captions, regular text...)

The user has to be sure NOT to add any handwritten notes or equations to their own document.

3.2 General Formatting

There are three sections to your dissertation, the front, body and back matter:

`\frontmatter` The command sets the Front Matter formatting.

`\bodymatter` The command sets the Body Matter formatting.

`\backmatter` The command sets the Back Matter formatting.

These commands control the font settings, page numbers, margins and all the other things the user does not have to worry about. DO NOT delete these commands from the document please. And be sure to add your abstracts, chapters, references... after the corresponding commands.

3.2.1 Page Numbering

*Page numbers are centered, 3/4 inch from the bottom of the page. They are the same font style as the main text. There are NO page numbers on the Title page or the Copyright page (if you have one). There are lower case Roman numerals on the (a) Unsigned Submittal Page, always page ii, (b) Abstract, always page iii, (c) Table of Contents, (d) List of Figures , (e) List of Tables, (f) List of Symbols, (g) List of Abbreviations, (h) Acknowledgments, and (i) Dedication Page **if** applicable. There are Arabic numerals on (a) Chapters – Chapter 1 is always page 1, (b) References Cited, (c) Selected Bibliography, and (d) Appendices **if** applicable.* ALL OF THESE THINGS ARE TAKEN CARE OF BY THE COMMANDS LISTED IN SECTION 3.2.

3.2.2 Margins

All margins must be 1", with an 8.5x11 page size. No text, figures, equations, ect. may go into the 1" margin. ALL IS SET BY THE TEMPLATE.

You will get a error message from the Template if anything has reached into the 1" margins. You must make these items smaller or break them up across multiple lines to get rid of the error.

Any figures or tables that are too large to fit within the 1″ margin on all sides must either (1) be shrunk to fit within the margins, or (2) uploaded as supplemental files. Tables that cover more than one page need to be labeled correctly. Figures that can fit on the page without the caption may have the caption on the 1st page, following the figure on the next page. DO NOT split a single item/image over 2 or more pages. DO NOT split a caption over 2 pages. This is all you! Do not do this!

You can find more information on multi-paged tables in Chapter 8, and in the example chapter '06-Table-Examples.tex' in the example dissertation.

3.2.3   Line Spacing and Indentation

You can have one and a half or double line spacing in the front matter and text in paragraphs, but be consistent and have the same in both. Exceptions are the Figure and Table captions - these are single spaced. Also Multi-line Titles, subheadings, captions, references in the Table of Contents, Lists and References are single spaced. There is appropriate spacing between the text and Figures and Tables to differentiate. Each paragraph is indented. ALL IS SET BY THE TEMPLATE.

You might want to change is the line spacing which is defaulted to double-space. To change the line spacing you need to go to the 'csm-thesis.sty' file. Find the words 'Line Spacing'. The quickest way to find it is be doing 'Ctrl + F' and putting in those words. You can use either of these commands:

`\onehalfspacing` The command sets the text to 1.5 spacing.

`\doublespacing` The command sets the text to double spacing, default.

3.3   Titles

Title Page, Table of Contents, List of Figure/Tables, Chapters, References, etc, (1) each of these sections or new chapters begins on a new page. (2) Chapter/Section Titles are 1 keyboard stroke below the 1″ margin, centered on the page horizontally, all UPPER CASE letters, same font style/size as main text. DO NOT make them bold or italic. ALL IS SET BY THE TEMPLATE.

Math notation is not allowed in headings. To add math or quickly add short hand atom notation use these commands:

`\texorpdfstring{}{}` The command shows math notation in the `pdf`, but allows for text search in that area. This command takes two inputs, the first is math mode, and the second should be a text replacement. Here you will replace the math with an alternative for the text recognition.

For example `\texorpdfstring{H$_2$O}{Water}`, this will show H_2O, but read water to any `pdf` viewer.

`\atom{}{}{}{}{}` The command is a quick way of adding short hand atom information. This command is also excepted in titles or you can also use it though out the text when ever you are adding such notation. The inputs are: (1) Mass number, (2) Atomic Number, (3) Element, (4) Charge, and (5) bottom option. You can leave any of the fields empty if you do not want to include that section

An example is `\atom{12}{6}{Th}{2-}{3}`. This example would produce $^{12}_{6}\text{Th}^{2-}_{3}$, while leaving the last two fields empty would produce $^{12}_{6}\text{Th}$.

Note that the usage of atoms/molecules in titles may need to be spelled out on the cover since the binding company cannot typeset them.

3.3.1   Chapters

The word 'CHAPTER' and number are on the top line followed by the chapter title on the line below. The title is in all CAPITAL letters and same size text. Multi-line chapter titles are in an inverted pyramid shape, just like the title page. ALL IS SET BY THE TEMPLATE.

3.4 White Space and Blank Pages

Text must extend to the bottom of the page. No more than 3 inches of white space to the edge of the page (2.25 inches to the page number). Figures/Tables do not need to directly follow the text referring to the figure/table. If a figure/table won't fit on the page (1) refer the reader to the page where the figure/table can be found, (2) and move the next section of text up to the page with the white space.

No blank pages are allowed. White space is only allowed (1) At the end of a chapter, (2) When a figure/table fills more than 50% of the page and no other text is added to the page (figure or table stands along on the page). (3) If the first 2 lines of a paragraph will not fit at the bottom of the page, (4) if the next subheading + 2 lines of text won't fit at the bottom of the page.

How to Resolve Excessive White Space: (1) Extend text to the bottom of the page. (2) if text refers to a figure/table and the figure/table will not fit on the page: (a) Make a note in the text referring to the figure/table (i.e. see Figure 3.1 on page 8). (b) Then move the next lines of text up to fill the white space and finally add your figure or table in the next most appropriate spot.

To fill a page, you may increase the size of figures/tables. Just make sure that they do not look out of proportion to the other text, figures or tables. It is acceptable to break equations between pages. It is acceptable to split a table over more than one page. It is acceptable to split a multi image figure over more than one page. It is not acceptable to split a single image figure.

The template checks if the first two lines of a paragraph (+ heading if applicable) fit on the bottom of the page, and move it accordingly if it does not fit. The `pdf` builder will try to optimize placement of figures/tables , automatically split equations across pages, and wrap text to fill the page.

YOU are responsible for not purposefully adding blank pages. Also if you do use the landscape figures or tables you have to be sure that there is no extra white space on the pages before. Texts does not automatically wrap around these environments.

As of Fall 2020 the rules on white spaces has been loosened and can be addressed on a case by case bases. Still try to not leave half a page empty if it is not the end of a chapter.

CHAPTER 4
FRONT MATTER

FRONT MATTER are all the things that are happening behind the scenes and in front of the body. Title page, signature page, tables and list of the content all fall into this category.

Almost all of the commands described here are already in the example thesis, I would advise you to just work from that and make it your own instead of starting from scratch.

4.1 Title Page

The Title page shows the Thesis Title and Authors Name (with 'by' above the name). There are no other words, symbols or images allowed on the title page. There is no page number and the name is 1" above bottom margin, centered horizontally in upper and lower case letters. The thesis title must be (1) in all UPPER CASE letters, (2) same size font and style font as main text (title is not larger), (3) be centered on the page both horizontally and vertically, (4) be in an inverted pyramid shape, (4) not in bold font, (5) Special characters in title are spelled out (section not §). ALL TYPESETTING IS SET BY THE TEMPLATE.

User input is required for the following commands:

`\title{}` The command sets the title for the document. Add your own title in the curly brackets, and add two back slashes (\\) to create line breaks in your title. The title must look like an upside down pyramid which means that the top line is the longest, and the lines get shorter the further you go down. Eg. The title for this document was written as

`\title{Reference Guide for the CSM Thesis\\ \LaTeX{} template}`

`\author{}` The command sets your name on the title and signature page. Enter your name in the curly brackets, how you want to see it on your dissertation. Do not forget your middle name(s)/initial(s).

`\maketitle` The command makes the title page with title and author information. The command needs to be followed by `\newpage`.

4.2 Copyright Page (optional)

The Copyright page is optional, the text must be centered on the page both horizontally and vertically and there is no page number. Add this page if you are paying ProQuest to file for copyright protection on your behalf. See OGS website for more information.

`\makecopyright{}` The command makes the copyright page and sets the copy right years. Place the copyright year(s) in the curly braces. The command needs to be followed by `\newpage`.

This must go in front of the Submittal Page and after the Title Page. The command will set the copyright page with all the required guidelines.

4.3 Submittal Page

The submittal page is always page ii. An electronic copy is uploaded as part of thesis in ProQuest without any signatures. Check if a hard copy of the page with signatures must be handed to the Grad Office.

You need to have filled out the following fields to make the submittal page

`\degreetitle{}` The command sets your degree. In the curly brackets state whether you are getting a Master's of Science/Engineering or a Doctor of Philosophy degree. eg. `\degreetitle{Master of Science}`

`\discipline{}` The command sets your degree discipline/field. Add your research area in the curly brackets, eg. `\discipline{Engineering Physics}`

`\department{}` The command sets your department. Add the Department you are doing the research for, eg. `\department{Physics}`

`\advisor{}` The command sets your advisor's name. Enter your advisor's name in the curly brackets, do not forget the 'Dr. ' prefix if they have a Ph.D! eg. `\advisor{Dr. Primary A. Advisor}`

`\coadvisor{}` The command sets your co-advisor's name. Enter you co-advisor's name in the curly brackets, if you do not have a co-advisor, then remove this command from you dissertation.

eg. `\coadvisor{Dr. Secondary A. Advisor}`

`\dpthead{}{}` The command sets the department head's name on the signature page. Enter your Department head's name in the first set of curly brackets and title in the second.

eg. `\dpthead{Dr. Uwe Greife}{Professor and Department Head}`

`\makesubmittal` The command makes the submittal page. The command needs to be followed by `\newpage`.

4.4 Abstract

The abstract title, ABSTRACT, is centerd horizontally, 1 keyboard return below 1" top margin & in all UPPER CASE letters. ALL IS SET BY THE TEMPLATE.

`\begin{abstract}` The environment for the abstract is started and ended by these commands.

`\end{abstract}` The closing of the envrinment needs to be followed by `\newpage`

The abstract should be a brief statement of the thesis problem, research method, and report on major findings. The abstract is generally between the 200 and 300 words in length (1 or 2 paragraphs). DO NOT repeat the thesis title. Try not to use any citations. The abstract in the example is written in a file 'i-abstract.tex' under the chapter directory.

4.5 Table of Contents and Lists

Lists are double spaced between titles/captions. Single line spacing for multi-line titles and captions. Page numbers are preceded by ellipses (...) and are right justified. The text does not extend beyond the last leader dot (...) for clear line of sight of the page numbers. Each title and caption must appear exactly as it does in the text. ALL TYPESETTING IS SET BY THE TEMPLATE.
Use these commands to make the following lists

`\tableofcontents` The command makes the Table of Contents.

`\listoffigures` The command makes the List of Figures.

`\listoftables` The command makes the List of Tables.

`\listofsymbols` The command makes the List of Symbols.

`\listofabbreviations` The command makes the List of Abbreviations.

All of these need to be succeeded with `\newpage`. The list of abbreviations and list of symbols can either go in the FRONT or BACK MATTER of your thesis. If it is in (1) the Front Matter they are the last lists in the sequence of lists, (2) the Back Matter the lists are placed immediately after the REFERENCE CITED. The symbols and abbreviations in the example thesis are defined in the file 'symbols-and-abbreviations.tex' in the supporting-files directory. To keep organized you are recommended to add your abbreviations and symbols in that file.

4.5.1 Table of Content

There might be a case where a chapter occurs in the table of content (at the bottom of the page) and has all its (sub)subsections on the following page. OSG would like for you to make sure Chapters are at least followed by one subsection before the page ends, if applicable. To move the items you have to add this code.

`\addtocontents{toc}{<space>}` This code adds a blank entry to the TOC. You will need to place this before the chapter heading that needs to move to the next page. For example you could add this `\addtocontents{toc}{\vspace{30\baselineskip}}`. For ease of use just copy that code and change the number till you pushed it to the next page.

Check out `03-Journal-Chapter.tex` for and example. Un-comment (remove `%`) the top line and see how the TOC changes. Note that in this case we did not need to use it, but it is there for you to learn the code)

4.5.2   List of Symbols

`\listofsymbols` The command makes the List of Symbols in the order they are defined in the text/specified document.

`\listofsymbols*` The command makes the List of Symbols that is sorted alphabetically on the description. The system sorts capitalized and non-capitalize descriptions separately so be consistent with describing the symbols.

`\ShowSymbolFirst` Place this above the `\listofsymbols` command to show the symbols on the left instead of the right.

`\addsymbol{}{}` The command adds symbols to the list. You can add them any where in the text, but for your convenience there is one place, 'supporting-files/symbols-and-abbreviations.tex' where you can just keep tract of all your symbols and abbreviations. The first input is the description, and the second input is the symbol. Eg. `\addsymbol{Vacuum Permeability}{$\mu_o$}`.

`\addsymbol[]{}{}` You can create sub-lists if you have a lot of symbols. You add items to a sub-list by specifying the list in the square brackets, `\addsymbol[<sub-list>]{<description>}{<symbol>}`.

`\listofsymbols{}` Calling a specific sub-list, place the name of the sub-list in the curly brackets to call the sub-list. An example of this is shown in the example dissertation.

4.6   List of Abbreviations

`\listofabbreviations` The command makes List of Abbreviations in the order in which they are defined in the text.

`\listofabbreviations*` The command makes List of Abbreviations sorted alphabetically on the description.

`\addabbreviation{}{}` You can add abbreviation anywhere in the text, but for ease I would always define them in the same place. The first input is the description and the second input is the abbreviation. Eg. `\addsymbol{Second-Harmonic Generation}{SHG}`.

4.7   Acknowledgments (Optional)

The title, ACKNOWLEDGMENTS is centered horizontally, 1 keyboard return below 1" top margin and in all UPPER CASE letters. The capitalized title is centered on the line consistent with the chapter headings. Page numbering continues in Roman numerals, as in all front matter. ALL IS SET BY THE TEMPLATE.

An acknowledgments page is optional and is where the author recognizes advisor, committee members, and other persons who provided special help or advice. Included here are also any fellowships or other sponsorship support from outside agencies or from CSM, and any permissions received for extensive use of copyrighted material.

`\begin{acknowledgments}` The environment for the acknowledgment is started and ended by these commands.

`\end{acknowledgments}` The closing of the environment needs to be followed by `\newpage`. If you do not wish to have a acknowledgment, you do not have to include these commands, just remove or comment out the lines in the example thesis.

4.8   Dedication (Optional)

If a dedication page is included, it is placed at the end of the front matter section, following the acknowledgments. Typically, a dedication page has no title, it simply states, e.g., "For my father." Roman numeral page numbering continues on the dedication page.

A dedication page is optional and not frequently included in a thesis. However, occasionally the thesis writer wants to dedicate the document to a professional colleague, friend, or relative. A dedication typically expresses gratitude for someone's support.

`\begin{dedication}` The environment for the dedication is started and ended by these commands.

`\end{dedication}` The closing of the environment needs to be followed by `\newpage`. If you do not wish to have a dedication, you do not have to include these commands, just remove or comment out the lines in the example thesis.

CHAPTER 5
BODY MATTER

The BODY MATTER is the main body of the dissertation, and typically includes the Introduction, Background, Theory, Results, Conclusion, etc.. Your body matter goes after the \bodymatter command. Here are the different levels of text that you can uses to section off information as you see fit.

5.1 Chapter Titles

Chapter titles need to be (1) Consistently formatted throughout the entire thesis, (2) centered on the page, (3) same size and style font as the main text, (4) not bold font and (5) in all caps. Each new chapter must start on a new page, with CHAPTER + the chapter number + the title. The CHAPTER + chapter number is one keyboard stroke below the 1 inch top margin, followed by the title on the next line Chapter titles that cover more than one line need to be in an inverted pyramid shape. ALL IS SET BY THE TEMPLATE.

\chapter{} The command declares the title of a new chapter. The command starts a new page, sets the text to all capital letters, centered on the page. Long chapter titles should automatically follow the inverted pyramid. Eg. \chapter{This is my chapter title}

CHAPTER 2

THIS IS MY CHAPTER TITLE

\chapter[ ]{ } If your chapter title takes up multiple lines you have to up it in pyramid shape. Here you would write your title in the [ ] for the Table of Content, and you would write your title with line breaks (\\) in the { } to show the pyramid shape at the beginning of the chapter. See file "02-another-chapter.tex" in example thesis for an example of this in use.

5.2 Headings and Subheadings

Headings and Subheadings must be (1) consistently formatted throughout the entire thesis, (2) same spacing before every heading & same spacing before every subheading, and (3) in bold font with same font style and size as main text. Do not add extra space before a heading/subheading just to fill a page. If you add space before one heading/subheading, you must add the same amount of space before every heading/subheading throughout the entire thesis. At least two lines of text after a heading or subheading before the end of a page. ALL IS SET BY THE TEMPLATE.

The template should check if two lines and the heading fit on the bottom of the page, it they do not fit, it will pull the heading to the next page. You have to be consistent when writing these subheadings, either choose-camel case, or regular sentence structure. All of these 'titles' should format properly when you have long titles. Remember the note on math in titles made in Section 3.3 and 5.2.1.

\subsection{} The command declares a subsection, which you can use after a chapter has been made.

2.1 My Subsection is Numbered Like This

\subsubsection{} The command declares a subsubsection, which you can use after a subsection has been made.

2.1.1 My Subsubsection is Numbered Like This

\paragraph{} The command declares a subsubsubsection, which you can use after a subsubsection has been made. You are highly **discouraged** to using the last paragraph option.

2.1.1.1 My Subsubsubsection is Numbered Like This

5.2.1 Math Mode in Sections, Titles and other Bookmarks

Putting math-mode in sections, titles, and other bookmarks will generate warnings with `hyperref`. The ways you can work around this is (1) Not use the `hyperref` package, or (2) use our built-in `pdf` replacement function (below). Look at the commands in Section 3.3 to see how to add math in any of the titles, headings or sub-headings properly. If you do not use this to put math in these heading then you will get an error "Token not allowed in a PDFDocEncoded string". Removing `hyperref` can result in improper formatting.

5.3 Figures and Tables

There are a lot of criteria, so they are addressed in the list, right after the mentioning of the criteria.
OGS REQUIREMENTS:

1. *Must be listed in Front Matter in List of Figures or List of Tables.*

   → Make sure you have `\listoffigures` and `\listoftables` after the table of content. When adding figures/tables be sure to use figure/table environments they will be added to their specific lists.

2. *Must be numbered, have captions, and be referenced in the text prior to appearing – If the figure or table will not fit on the page immediately following the reference and there is too much white space on the page, you must bring text from the next section up to the page to fill the white space. In your reference to the figure/table, you will tell the reader on what page the figure/table can be found.*

   → Use `\label{}` to give the figure/table a number. Use `\caption{}` to give the figure/table a caption. Place the figure/table after your first reference to make sure the reference comes first.

3. *Must fit within 1" margins.*

   → To make sure the figure falls within the margins, set the figure width in terms of the text width. For example `\includegraphics[width=0.5\textwidth]{path/to/file}`, sets the image to 50% of the text width. In turn you can also set the height of the figure. You may set it in terms of inches, but make sure it is smaller than 6.5 inches in width or 9 inches in height.

4. *Do not wrap text around a figure/table.*

   → Do not use fig-wrap package. LATEX would never by default put text and figures next to eachother.

5. *Do not place figures/tables side by side -sequential figures/tables need to follow one after the other.*

   → Make a new figure/table space for each separate figure/table. You may use sub-figures if figures go together (but make sure they do not have a different figure number).

6. *Captions are single spaced: Font is black and same style and size as all other font throughout thesis* (ALL IS SET BY THE TEMPLATE)

7. *Figure number and captions are placed directly below the figures*

   → Place `\caption{}` and `\label{}` below/after the `\includegraphics[]{}`

8. *Table number and captions are placed directly above the tables*

   → Place `\caption{}` and `\label{}` above/before the `\begin{tabular}`

9. *1st number = chapter number and 2nd number = figure/table number within the chapter – Example: Figure 2.4 is the 4th figure in chapter 2* (ALL IS SET BY THE TEMPLATE)

10. *Figures and Tables in the appendices will be numbered with the appropriate appendix letter, followed by the figure or table within the appendix (ie. the 2nd figure in appendix A is Figure A.2 -You may use dashes(-) instead of periods (.), but make sure you are consistent throughout the entire document.* (ALL IS SET BY THE TEMPLATE)

11. *Single figures or tables take up more than 50% of the page, may stand alone on the page, centered on the page both horizontally and vertically.* See Chapter 7 or 8 for more information.

12. *If caption and table/figure do not fit on same page fill the page with no room for caption: – 1st page: place label + number + caption on the page, centered horizontally and vertically – Followed on the next page by the figure/table.*

    → For long tables I recommend you just make a long table that spans multiple pages. There is an example of Caption that goes before the figure that take up an entire page in the example these in `05-Figure-Examples.tex`

13. *Tables split over more than one page need to have: – The 1st page labeled with the Table + number and full caption. Then, all subsequent pages, need to be labeled with Table + number + Continued.*

    → Look at the notation for long tables in Chapter 8

14. *If caption and table/figure are larger than 6.5"X9": – Need to be shrunk to fit within the page with 1" margins or -if not integral to the thesis, uploaded as supplemental files. Do not add pages larger than 8.5 X 11*

    → Look at the notation for long tables in Chapter 8 for tables that do not fit on one page. Figures must always fit between the margins.

There are a lot of criteria here that need to be met. If you are somewhat familiar with LaTeX you should be fine. Let's just point out some things.

For proper placement of table/figure let LaTeX figure it out for you. Place the figure or table after you have first mentioned it with the `[ht]` as `\begin{figure}[ht]`. This will automatically find the proper placement of the figure, either right where you placed it or at the top of the next page. Use `[ht]` for figures you want to mingle with the text. If a figure or table takes up more than 50% of the page, leave off the `[ht]` and the object should be properly placed on its own page, or use `[p]`.

Example Figure text below, but see Chapter 7 for more examples. See Chapter 8 for more information about inserting tables.

```
\begin{figure}[ht]
\begin{center}
\includegraphics[width = \textwidth]{path/to/figure.pdf}
\caption{The Flying Spaghetti Monster Knows All \label{fig:fsm}} % Can place label here
\label{fig:unique-label} % or place the label after the caption.
\end{center}
\end{figure}
```

5.4 Float placement

OSG is not a fan of Floats (figure and tables) cutting through text of other sections. Be sure not to place any figure in the middle of you paragraph. Figure and Table cutting through a paragraph at the top of a page are acceptable. But avoid this in the middle of a page. If you need to move a figure or table you need to take you code `\begin{}...\end{}` for either the figure or table and move it in the raw `tex` file.

5.4.1 Forcing Floats to appear before the next section

`\FloatBarrier` Add this command before the start of a new (sub)subsection to force all float to appear before moving on. Make sure you do not leave to much white space. Maybe increase some of the floats in size.

5.5 Labeling and Referencing

`\ref{}` automatically adds "Table" or "Figure" in front off the reference number when you reference figure or tables. If you use `\ref{}` for equations it just gives you a number (example: 1.1). You can use `\eqref{}` which will put parenthesis around the reference number of the equation. If you want "Equation 1.1" instead of "(1.1)" you could use `\Eqref{}`.

For labeling, I suggest you label things with a consistent prefix for what the object is `\label{tab:...}` for tables, `\label{eqn:...}` for equations, `\label{fig:...}` for figures, and `\label{apdx:...}` for appendix where you fill in the ... for each individual object. This will help you stay organized and prevent repetitive labels.

CHAPTER 6
BACK MATTER

The back matter.

6.1 References

The references must be in a consistent academic style of the discipline. Only references sited in the text are included in REFERENCES CITED. The citations are double space between the different references and single space for individual references. Do NOT type URLs in blue. The title 'REFERENCES' is in all capital letters at the top of the page, centered. If adding references at the end of a chapter, make that section a heading (i.e. at the end of chapter 1, this could be heading 1.6 References). In this case, References is not a title and therefore it is NOT in all upper case letters. ALL IS SET BY THE TEMPLATE.

The 'academic style of the discipline' might vary for users.

Make sure the citations in you .bib file are correct. Especially double check that the resources type is correct. This will dictate how the items in the bibliography are formatted.

We suggest using a citation management tool to create your .bib file. This make your references machine readable in the click of a button. Attend a Library workshop, visit the Library's website, or speak to a librarian about getting started with a citation management tool. This will make your life much easier. READ: MUCH EASIER! `https://libguides.mines.edu/citing/software`

Look at `http://bib-it.sourceforge.net/help/fieldsAndEntryTypes.php#phdthesis` to find some information on the types of fields that exist. Also recommend using a reference manger.

6.1.1 Bibtex

The references cited in the mines thesis is based on BibTeX citations. If you are not familiar with this please consult the internet for more information. You should place your citations in the `thesis.bib` file that is under the supporting-files directory.

If you are not aware, a lot of scholarly sites that provide papers produce BibTeX citations for you. You can just place them in the `.bib` file and not have to worry about formatting yourself. Also, Mendeley provides BibTeX citations and is useful for keeping your files organized.

NOT RECOMMENDED: You can add `\printbibliography` after the `\bibliography{thesis}` if you are using biblatex instead of natbib or the build-in bibliography utility

6.2 Hyperref and Cite packages

If you did not know, `hyperref` and `cite` do not work well together. The template is centered around hyperref, but also recommends using `natbib`. (Some information can be found at https://texfaq.org/FAQ-citesort). If you choose to add the `cite` package you can

1. Not use the `hyperref` package
2. Put `cite` before `hyperref`, resulting in no citation hyperlinks
3. Put `cite` after `hyperref`, resulting in ugly looking citations

If you wish to remove `natbib` from the template, set the standard "numeric" style for the bibliography with `\bibliographystyle{unsrt}`.

6.3 Bibliography

If you want to add a selected bibliography you would add

```
\clearpage
\begin{selected-bibliography}
<Your selected bibliography would go here>
\end{selected-bibliography}
```

right after the reference section.

6.4 Appendices

All the formatting rules apply to the appendices. Page numbers of appendices continue in same sequence and position as that used in body. Appendices must be listed in the Table of Contents. Figures and Tables in an appendix must be included in the List of Tables and List of Figures. Figures and tables in an appendix must be numbered and have a caption, just like in the main body. Figure, table and equation numbers in appendices are preceded with the appropriate appendix letter – For example, the first figure in Appendix A is labeled Figure A.1, etc.. Supplemental electronic files must have a separate appendix listing and describing the files

All formatting (but the last) is taken care of thought the Template.

`\appendix{ }` The command declares the beginning of an appendix, instead of using `\chapter{}`.

If you only have one appendix it will not be labeled with a latter. If you have more than one appendix they will be labeled in alphabetic order.

6.4.1 Permissions

Make sure to get permission to include any figures that you did not create, or indicate the open license. You should add this information in one appendix.

You should include copyright permissions in an appendix. You should obtain permission for use of any copyrighted materials that you did not create. More information on how and when to obtain permission can be found on `https://www.mines.edu/graduate-studies/thesis-writers-guide/`

You can upload images or statements of permissions in an appendix. Alternatively, you can put the images or statements of permissions in a supplemental file that is not in the dissertation, however you will still need to list those in the appendix and name the supplemental files. Some publishers or rights holders may require a certain format for indicating permission. In other cases, an email from the rights holder will suffice.

6.5 Supplemental Files

Supplemental files are optional. If you upload supplemental electronic field, you must include an appendix listing and description of the file. Supplemental files must be uploaded separately from the thesis. There is no file size limitation on supplemental files.

CHAPTER 7
MORE ON FIGURES

There are many ways to insert figures and also some ways that the OGS thinks are wrong. So here to follow will be code showing different ways of inserting figures as well as the proper ways to show figures.

7.1 Standard way

`\begin{figure}` The environment for a figure is started and ended by these commands.
`\end{figure}`

Just inserting a figure that is of normal size (take up less than 50% of the page) you can use:

```
\begin{figure}[ht]
    \centering
    \includegraphics[width = 0.7\textwidth]{path/to/file}
    \caption{Caption}
    \label{fig:my_label}
\end{figure}
```

OGS does not want two figures (example Figure 2.4 and Figure 2.5) next to each other. So do not include two `\includegraphics[]{}` in one `figure` environments. If you want subfigures (example Figure 2.4a and Figure 2.4b) you can use

```
\begin{figure}
    \centering
    \subfigure[<subfigure caption (a)>]{
        \includegraphics[width=<width>]{path/to/figure/a.png}
        \label{fig:sub-figA}
    } \\
    \subfigure[<subfigure caption (b)>]{
        \resizebox{<width>}{!}{\includegraphics{path/to/figure/b.pdf}}
        \label{fig:sub-figB}
    }
    \caption{<caption for the full figure (a) and (b)>}
    \label{fig:fulFigureAB}
\end{figure}
```

Figures may only stand alone on a page if they take up more than 50% of the page. Else fill up the entire page with text if the figure is not the last part of a chapter.

7.2 Built-in function

There are some build in functions to maybe make it quicker for you to put in figures. The first is just for regular figures, where you provide the label, file, width and caption of the figure as inputs to one command.

`\csmfigure{}{}{}{}` The command inserts a figure in the text. The four inputs are: (1) the label, (2) path to file, (3) width of the image, and (4) the caption of the image. This is quicker than the general figure input, but not much different. The placement setting is defaulted to `[ht]`

For example you can have

`\csmfigure{coolFoto}{figures/image.png}{4in}{What a nice caption}`

Here the figure would be reference with `\ref{fig:coolFoto}` and be 4in in width.

7.2.1 Long Caption

Another built-in function allows you to show a shorter caption in the "LIST OF FIGURES" than you have below the figure itself (only use if your caption is long, more than 2 lines).

`\csmlongfigure {}{}{}{}{}` This function has five inputs: (1) the label, (2) path to file, (3) width of the image, (4) the caption that will show in the table of contents, and (5) the caption that will tag onto caption in (4) underneath the figure.

You provide the label, image, width, short caption and long caption. Note that the two captions are combined in the text under the figure. You will be able to reference it with `\ref{fig:label}` with "label" being the label you gave the figure.

7.3 Large Figures

Sometimes you have a figure that takes up more than 50% of the page to show all the details. In regular (portrait mode) you can leave off the 'placement markers' when starting your figure, and LaTeX should properly place the figure on its own page with out too much work form the end user. You can also set the placement marker to `p`, setting it to its own page. (example: `\begin{figure}[p]`, here `[p]` is the placement marker, usually `[ht]` for smaller figures) This is for figures that are taller than they are wide (Portrait).

For figures that are wider than they are tall (Landscape) you need to flip the orientation of the page. Notice that the text does not automatically wrap around the landscape page, so you will have pay extra attention to the 'white' space on the surrounding pages.

`\begin{landscape}` The environment for a landscape page are started and ended by these commands.

`\end{landscape}` The page number will be centered along the long edge of the page.

Here is an example of how I would place a big figure on the landscape page. An actual example with output is shown in the example template, under the hidden Figure Chapter, just uncomment the `\input{chapter/05-Figure-Examples}` to see the examples.

```
\begin{landscape}
        \centering
        \begin{figure}
            \centering
            \includegraphics[width=.9\linewidth]{path/to/file.pdf}
            \caption{Caption}
            \label{fig:label}
        \end{figure}
\end{landscape}
```

7.4 Setting Default Figure Size

When you are in the beginning phase of your thesis and are not concerned with formatting the figures in the proper way, it might be nice just to have a default figure size. To set a default size navigate to the 'csm-thesis.sty' file. In the file search for `graphics` or `graphicx`. If you have the version using `graphics`, change the `s` to an `x`. Under the command for including the `graphicx` add the following line,

`\setkeys{Gin}{}` The command will set a default size for figures when the user inputs information in the second set of curly brackets. In the empty set of brackets set either a default height or width. For example we can choose either to set the width, `width = 0.5\linewidth`, or or the height, `height = 2in`. This will set the height or width dimensions when figures are added.

If we set `\setkeys{Gin}{width = 0.5\linewidth}`, all default image sizes are set to take up 50% of the page width. Now if I want to change the figure height and have the figure scaled properly, we must declare that the image width is free to change again. This is done with `width = !`.

Eg. `\includegraphics[witgh = !, height = 2 in]{./path/to/file}`.

CHAPTER 8
MORE ON TABLES

The ways you can insert tables are pretty straightforward. You can look up latex table generators that can help generate code for you. Here are some of the basics and some information on multi page tables.

8.1 Standard way

Just inserting a figure that is of normal size (i.e. takes up less than 50% of the page) you can use:

```
\begin{table}[ht]
\caption{\label{tab:magic} caption}
    \begin{center}
        \begin{tabular}{|c|c|c|}
            \hline
            & B & b \\
            \hline
            B & BB & Bb \\
            \hline
            b & Bb & bb \\
            \hline
        \end{tabular}
        \end{center}
\end{table}
```

8.2 Large Tables

Sometimes you want to show a lot of information in a table (table takes up more than 50% of the page) you may place it on its own page. If you have a table that is taller than it is wide (portrait ratio) and you want it to take up its own page, you can leave off the 'placement markers' (eg. [ht]) and it should be placed on its own page by LaTeX. Also, just as for the figures you can ensure it is on its own page with the placement marker p. You can always force things on a new page with \newpage, but then you have to check the white space yourself. For those tables that are wider than tall (landscape) and take up more than 50% of the page you have to flip the page. You do a similar thing as you do for the figure.

\begin{landscape} The environment make the next page landscape with the page number centered along the long edge .
  \end{landscape}

An example of the code is here for a table that fits on one landscape page, and an example with output can be seen in the example thesis template in the chapter of tables and in the appendix.

```
\begin{landscape}
    \begin{table}[ht]
    \caption{\label{tab:magic} caption}
        \begin{center}
            \begin{tabular}{|c|c|c|}
                \hline
                b & B & b \\      \hline
                B & BB & Bb \\   \hline
                b & Bb & bb \\   \hline
            \end{tabular}
        \end{center}
    \end{table}
\end{landscape}
```

8.3 Multi-page Tables

If you have a lot of information you can have multi-page tables. In the example thesis appendix there is an example of how to make such a multi-page table. Please check that code to help you make your own multi-page table. I will add some of the more important commands here.

`\begin{longtable}` The long table environment allows a table to be split over multiple pages

`\end{longtable}` You can add this environment in regular 'mode' or landscape mode

`\endfirsthead` The command lets you have a different header for the first page of the table and the following pages of the table. Header here means the first row in the table on the next page with descriptions of what is in each column.

```
\begin{longtable}{|c|c|c|c|c....}
    \endfirsthead
```

`\endhead` The command notes when you are done declaring header that follows the first page. Look below how to use it:

```
\begin{longtable}{|c|c|c|c|....}
    \endfirsthead
    \hline
    Header 1 & Header 2  & Header 3 & .... % <-- DON'T add any 'end line' commands
\endhead
```

`\tabularnewline` The command has the same functioanliy as adding a line break at the end of each row. If wyou want a horizontal line between the two lines you add `\hline` after it.

Here is a short example of what it might look like

```
\begin{longtable}{|c|c|c|c|....}
   \endfirsthead
   \hline
   Header 1 & Header 2  & Header 3 & .... % <-- DON'T add any 'end line' commands
   \endhead
   \caption{The Table Caption on First Page \label{tab:longtable}}\\ %
   \hline
   My Header 1 & My Header 2 & My Header 3 & ... \tabularnewline \hline
   Content 1   & Content 2   & Convent 3   & ... \tabularnewline \hline
   .
   .
   .
   Last Line 1 & Last Line 2 & Last Line 3 & ... \tabularnewline \hline
\end{longtable}
```

There are several examples of this in the example thesis. Note that 'My Header #' above are the headers of the columns on the first page, and 'Header #' are ther headers of the columns on any subsequent page. The caption is only shown of the first page and all subsequent pages show 'Table #.# Continued' where the # are filled in the the table label.

CHAPTER 9
OTHER USEFUL INFORMATION

This chapter contains some general information and the packages that the Template automatically uses.

9.1 Running the Template

There are two package options for the `csm-thesis.sty` that you may choose to use when compiling the template: "insane" and "nolabel".

`\usepackage[insane]{csm-thesis}` insane: Turns off all document sanity checks. This option can be used to render a "sub-document" that is part of the root thesis document. It is important to note that you should NEVER disable this check on your root thesis document, as important formatting errors and warnings will be disabled.

`\usepackage[nolabel]{csm-thesis}` nolabel: Disables automatic reference 'labeling' of figures and tables. By default the thesis template prepends any reference to a figure or table with "Figure " or "Table ". This option is meant for disabling the labeling behavior when a document already has the appropriate labeling. It is important to note that if your document DOES NOT have the appropriate labeling (the reference label must EXACTLY MATCH the caption label) then it will not pass the format review.

`\usepackage[chapterbold]{csm-thesis}` chapterbold: Makes all the chapter and list titles bold. But I don't think this is allowed.

`\usepackage[insane, nolabel]{csm-thesis}` Use multiple options at the same time.

9.2 Hyperref

The thesis template will automatically import your document information into `hyperref`, so if you go to "File | Properties" in Adobe Acrobat it will display the title and author. If you would like to override this option then just change the line `\usepackage{hyperref}` to `\usepackage[]{hyperref}`.

9.3 Included Packages

Here is a list of the packages that are included in the csm-thesis style files and what it is used for.

`setspace` The package is used to set the line spacing.

`geometry` The package sets the 1 inch margins all around the pages.

`sfmath` The package sets the math symbols and font style.

`textcase` The package is used to capitalize the title but allow non-capitalized atoms/molecules.

`subfig` The package is used to insert sub-figures.

`float` The package is used for figure placement.

`graphics` The package is used for figure inclusion. Could also be `graphicx`.

`footmisc` The package is used to format footnotes.

`citation` The package is used for formatting the captions (remove the ':' between the figure or table number and caption).

`url` The package is used to fix bibliographical references that use special characters (necessary if you do not use hyper ref).

Here is a list of packages that are shown at the beginning of the main text document document.

array The package is used for inserting large multi-page tables.

longtable The package is used for inserting large multi-page tables.

natbib The package is used for proper citations.

hyperref The package is used for referencing though out the document. Can change, look at user manual how to change (not recommended).

pdflscape The package is used for inserting landscape-mode objects .

amsmath The package is used for inserting matrices.

listings The package is used for inserting programming code.

rotating The package is used for inserting sideways tables and figures.

lipsum The package is used for dummy text. You can remove this once you have remove all of the example text.

my-Equations The `.sty` file is used for defining personalized commands. These commands can be used to speed up the writing process.

The last list of packages are all the csm-thesis style files, and why they are included in the template.

csm-thesis-sanity The code allows for fancy sanity checking. These check are things line placement of captions, or missing text after a header.

csm-thesis-environments The code allows the used to use custom environments for additional error checking.

csm-thesis-title The code focuses on title handling.

csm-thesis-lists The code focuses on list of tables figures, symbols,... Setting the proper formatting and line spacing.

csm-thesis-sections The code sets special section types.

csm-thesis-compat The code check compatibility with a variety of packages that the end user can try to add to the document.

csm-thesis-encoding The package focuses on fixing some character encoding to produce sane results.