

TITLE OF YOUR THESIS OR DISSERTATION. IF MULTIPLE LINES, MAKE
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A Thesis
by
YOUR NAME

Submitted to the Office of Graduate Studies
of Texas A&M University-Commerce
in partial fulfillment of the requirements
for the degree of
MASTER OF SCIENCE
Month 20XX

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ABSTRACT

TITLE OF THESIS OR DISSERTATION: MAKE SURE THE TOP LINE IS LONGER
THAN THE SECOND LINE

Your Name, MS
Texas A&M University-Commerce, 20XX

Advisor: Name of Your Advisor, PhD

Instructions: Your proposal abstract should include the purpose and procedures with results and conclusions being added in your final dissertation, though you may present the information in whatever format you choose. If your abstract extends to two pages, the second page is numbered at the top right as are all pages throughout the proposal or dissertation. An abstract shall not exceed 350 words and must be doubled-spaced as is the remainder of the dissertation. Any term (or numeral) with a space on either side is counted as one word. For many researchers, relevant articles are selected based on the material presented in the abstract; therefore, it is important to provide as much useful information as possible in as few words as possible.

Keywords: Keywords are optional.

ACKNOWLEDGMENTS

This is where you thank (for example), your family, your spouse/partner, your advisor, fellow students, that special teacher from third grade, your dog Moose who was your faithful writing companion . . . you get the idea. Your department probably has a collection of previous MS theses, so you might have a look at those to see what people write in this section and in the VITA section at the end. Try to keep your acknowledgements to one page.

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Chapter 1

INTRODUCTION

Begin the details of the introduction. Each chapter must be formatted in the same way with ALL pages numbered at the top right with Arabic numerals beginning on THIS page. All pages before THIS page are in lower case Roman Numerals.

The formatting and citation style used in this example are of the style typical for technical writing in physics and astronomy. Be sure to use the formatting that you and your advisor have agreed upon, be it APA, MLA, Chicago, etc. If your style differs greatly you will probably need to muck about with the document preamble to fix the formatting.

1.1. Some More Rules

Note that the MS Word template gives suggestions for specific chapter titles and general content. These may or may not be appropriate for a thesis in your discipline. The Graduate School does not dictate the content or specific format of the thesis (e.g., how references are cited and listed in the Bibliography), as long as you follow the style appropriate to your discipline, although they did complain once when a thesis didn't have five chapters, so *caveat emptor*.

This template is set up to use the Author-Year citation format using the `natbib` package. Instructions on using this in the American Astronomical Society style (Schwarz 2018) can be found here: <https://journals.aas.org/natbib/>. You can even refer to multiple references in a single command. For example, if you study cataclysmic variables, you may want to reference many seminal papers in the field (e.g. Wood et al. 2011, 2013), which you would do using the command `\citep[e.g.][] {Wood2013,2011ApJ...741..105W}`.

In American Astronomical Society style, papers with three authors should be cited in the text with all three authors the first time only, and then by the first author et al. in all subsequent mentions. This is a little clunky but doable. For example, you can tell by the way I use my walk that I've been kicked around since I was born (Gibb, Gibb, & Gibb 1977). Furthermore, whether you are a brother or whether you are a mother, you are

staying alive (Gibb et al. 1977). This is accomplished by using `\citep*{BeeGees77}` for the first instance and `\citep{BeeGees77}` for all subsequent instances. You do need to make some changes in the `\bibitem` format, though – look closely in the `LATEX` code for this entry in the references.

1.1.1. Ancient Mesopotamian Legends

The Epic of of Gilgamesh, such as the translation by George (2000), contains no known references to Akkadian styles of scientific writing, so you are on your own if you wish to write your thesis or dissertation in an ancient Middle Eastern language. Ask your advisor for advice.

1.1.2. Standard example lorem ipsum

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum (Smith & Wesson 1935).

Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt. Neque porro quisquam est, qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit, sed quia non numquam eius modi tempora incidunt ut labore et dolore magnam aliquam quaerat voluptatem. Ut enim ad minima veniam, quis nostrum exercitationem ullam corporis suscipit laboriosam, nisi ut aliquid ex ea commodi consequatur? Quis autem vel eum iure reprehenderit qui in ea voluptate velit esse quam nihil molestiae consequatur, vel illum qui dolorem eum fugiat quo voluptas nulla pariatur?

Chapter 2

EXAMPLE FIGURE AND TABLE

As part of our sample, we need to refer to a figure, since you very likely will have several figures in your thesis. Therefore, please refer to Figure 2.1 which is an old joke. Just a note that this figure was created with Python and Matplotlib¹. If you need to quote some code, you can do it with the `verbatim` environment. If you want to get *fancy* and display code listings in colorful boxes, you may want to look into using the `tcolorbox` package.

It is also likely that you'll need to include tables in your thesis. This is the one thing that is the most tedious about L^AT_EX – getting tables to look right. You may want to do some Google searching on this, and there are sites that will take your `.txt` files and wrap most of the needed L^AT_EX table commands around to get you close to what you need. So, please see the source code (i.e., the `.tex` file that generates the typset PDF) for how to set up Table 2.1. Note that whatever the content of your tables, your decimal points should line up in specific columns to the extent possible.

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¹Many students first learn Python and Matplotlib specifically because it provides a fairly simple way to make excellent publication quality plots. If you want to give it a try, we suggest you complete the [codecademy.com/learn-python](https://www.codecademy.com/learn-python) course (about 10 hours), and download and install the Anaconda Python distribution. Yes, this is an example of a footnote.

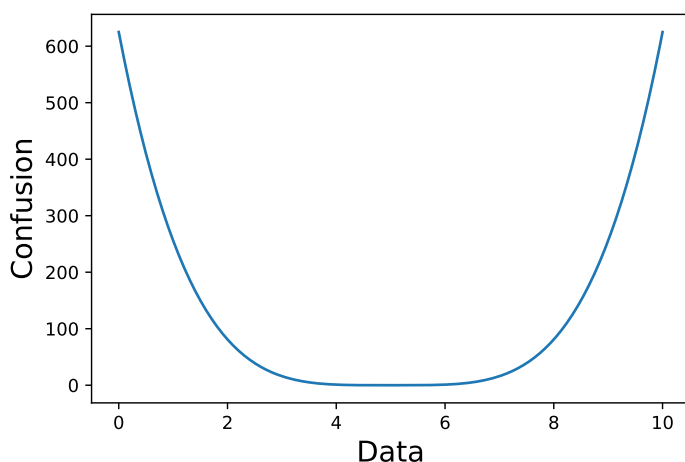


Figure 2.1. Data versus confusion. Note that your axes labels need to be big enough in your original figure so that they can still be easily read when reduced and shown here. \LaTeX will take care of placing your figures (and tables) so you may need to fiddle a little bit (for example moving the entire 'figure' block up a paragraph. Default Excel figures look pretty terrible. We recommend you spend a little time trying to get your figures to look like those published in the professional journals in your discipline.

dissentiet nec an, et dolorem deterruisset eam, veri utroque ad pro. Ne munere aliquip mel, graece viderer usu ea.

Ne stet doctus adipisci mei. In nisl sanctus scribentur pro, noluisse lobortis sit at, ei facilis repudiare ullamcorper nec. Partem mollis placerat est te, putent dictas omnium duo ne. Quis ancillae duo eu, movet pericula in pro. Tota illum percipit id pri, no volutpat persequeris disputationi mea, ut has nonumes fierent necessitatibus.

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Table 2.1. These are measured data (last update: 31 April 2025).

Data	Confusion	Notes
0.1	500	
2.0	70	
5.0	0	
6.2	...	Data unreliable
8.0	75	
9.9	545	Smith & Wesson (1935)

Chapter 3

SOME STUFF ABOUT EQUATIONS

Most students who choose to use \LaTeX do so because they are in the College of Science and Engineering and need to put a fair bit of mathematics in their thesis. \LaTeX is perfect for this. If you want just a simple displayed equation, then you can write

```
\begin{equation}
E = mc^2
\label{eq.energy}
\end{equation}
```

which yields

$$E = mc^2 \tag{3.1}$$

Note that the equations using this template will be numbered sequentially throughout the chapter and restarting in the following chapter (e.g., 3.1, 3.2, 3.3, then 4.1). If you want the equation numbers to be sequential through your entire thesis, you can Google how to do that. Heck, you can restart equation numbers in the middle of a chapter using appropriate commands, though I have no clue why you would want to do that.

As with figures and tables, use the `\label{}` and `\ref{}` commands to reference equations in the text: Einstein's most famous equation is shown in Equation 3.1.

If you are doing multiple equations in a block, you generally should have them align at the equal sign. \LaTeX makes this pretty easy:

```
\begin{align}
2x - 5y &= 8 \\
3x + 9y &= -12
\end{align}
```

which yields

$$2x - 5y = 8 \tag{3.2}$$

$$3x + 9y = -12 \tag{3.3}$$

This isn't a L^AT_EX manual, so that's all we will say about it here. Again, Google is your friend . . .

Chapter 4

ANOTHER FIGURE AND TABLE

You only need the List of Figures and List of Tables if you have more than one figure or more than one table. But you are a scholar and probably have several, right? So here is some more lorem ipsum with an embedded figure and table.

At vero eos et accusamus et iusto odio dignissimos ducimus qui blanditiis praesentium voluptatum deleniti atque corrupti quos dolores et quas molestias excepturi sint occaecati cupiditate non provident, similique sunt in culpa qui officia deserunt mollitia animi, id est laborum et dolorum fuga. Et harum quidem rerum facilis est et expedita distinctio. Nam libero tempore, cum soluta nobis est eligendi optio cumque nihil impedit quo minus id quod maxime placeat facere possimus, omnis voluptas assumenda est, omnis dolor repellendus. Temporibus autem quibusdam et aut officiis debitis aut rerum necessitatibus saepe eveniet ut et voluptates repudiandae sint et molestiae non recusandae (Table 4.1. Itaque earum rerum hic tenetur a sapiente delectus, ut aut reiciendis voluptatibus maiores alias consequatur aut perferendis doloribus asperiores repellat.

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Table 4.1. Election returns for the 1912 presidential election.

Candidate	Party	Popular Votes	Electoral Votes
Woodrow Wilson	Democratic	6,296,284	435
Theodore Roosevelt	Progressive	4,122,721	88
William Howard Taft	Republican	3,486,242	8
Eugene V. Debs	Socialist	901,551	0

adipiscing elit ut aliquam purus. Nibh mauris cursus mattis molestie a iaculis at (Vide Figure 4.1). Ut pharetra sit amet aliquam id diam maecenas ultricies mi.

$$\vec{\ell} = m \vec{r} \times \vec{v} \quad (4.1)$$

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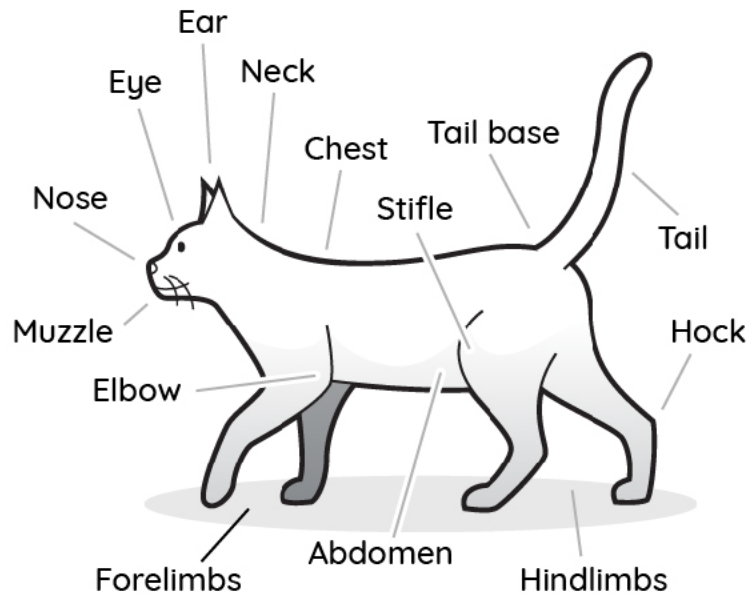


Figure 4.1. The ultimate guide to cat anatomy. Many people are lovers of cats and they are a popular topic of conversation as well as being a huge internet sensation. Since this is the case, there are likely to be a huge variety of times where talking about the parts of a cat in the English language is required. Figure from the *2021 Ultimate Veterinary Guide to Cat Anatomy* from *vetcheck.it*; caption from Emma at 7ESL.

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Chapter 5

CONCLUSIONS

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APPENDICES

APPENDIX A
APPENDICES AND PERMISSION DOCUMENTATION

Appendices are optional and used for supplementary material. Each appendix must have a title or cover page. Place the appendices after the reference section. All appendix pages need to be numbered. Page numbers are continued from the last page of the references through the vita. All material must be within prescribed margins and be readable in size and legibility (7 pt. or larger). Appendix headings/titles must be on a separate title/cover page before the actual Appendix material.

If you include material in your thesis that is under copyright, such as a figure or significant amount of text that was published in a professional journal (even if you wrote said text!), you will need to get copyright permission forms from the author and/or publisher - rules vary from publication to publication and can be very Byzantine. It is YOUR responsibility to collect any and all necessary forms and include them in an appendix.

APPENDIX B
COMPUTER CODE

```
# Sample Python code used to make the Old Joke figure.
import numpy as np
import matplotlib.pyplot as plt

x = np.linspace(0,10,200)
y = (x-5)**4

plt.plot(x,y)
plt.xlabel('Data',fontsize=16)
plt.ylabel('Confusion',fontsize=16)
plt.savefig('dataVconfusion.pdf')
plt.show()
```

VITA

Though many students already have a resume-style vita, the Graduate School requires students to publish a paragraph-style vita instead. If you have difficulty drafting your vita, please contact TDS@tamuc.edu for a sample vita.

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