# YOUR DISSERTATION TITLE WILL GO HERE

by

# YOUR NAME GOES HERE

(Under the Direction of [Prof's Full Name] (No Dr. or PhD))

## **ABSTRACT**

This section of the page is where your abstract will go. Fill in this spot in the dissertation.tex file with your abstract. Doctoral 350 words max, 150 max for masters.

INDEX WORDS: [PUT YOUR LIST OF INDEX WORDS HERE SEPERATED BY COMMAS]

# YOUR DISSERTATION TITLE WILL GO HERE

by

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B.S., University of Georgia, 2018
Enter only degrees already completed. Follow example above
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A [Dissertation or Thesis] Submitted to the Graduate Faculty of the University of Georgia in Partial Fulfillment of the Requirements for the Degree.

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# YOUR NAME GOES HERE

Major Professor: FIRST LAST 1

Committee: FIRST LAST 2

FIRST LAST 3

Electronic Version Approved:

Ron Walcott Interim Dean of the Graduate School The University of Georgia MONTH YEAR

## **DEDICATION**

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# **ACKNOWLEDGMENTS**

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#### SOME EXAMPLES YOU MAY NEED

This is where your content will go. There will be examples of figures, tables, citations, and footnotes/sidenotes in this section. In the source files, there will be examples and how to get them to appear on the TOC, LOF, and LOTs Some Diciplines use section and subsection headings more than others. The Chapter one is really all that matters. This is strictly to give the reader a sence of how they look on the TOC.

#### § 1.1 Your first section

How do you feel so far? In these next few subsections we are going to be illustrating how to do these different things in LaTeX. Hopefully you will be able to replicate it whenever you need them. It is good to have all of you images (figures) in their own folder so you can keep some organization to your projects.

# § 1.1.1 Table Example

In this subsection, we are going to give an example of a table and how one will look. There are many ways to make a table and customize them. Here is one example:

Table 1.1: The Caption of the table.

left justified	centerd	right justified	no left border						
row I	fill	in between	the &s						
row 2									

# § 1.1.2 Figure Example

This is going to be an example of how to insert an image and it's caption. We can also reference it anywhere else in the document as well. An icon of a man, figure 1.1 is one of many different prototypes of perfection.



Figure 1.1: The Rickest of Ricks

## § 1.1.3 Equation Examples

You can also reference an equation just like a figure and table. There are two different enviornments that are needed. The first is just using the equation enviornment. This is useful when you have one equation to write. As seen here:

$$Y = \beta_0 + \sum_{i=1}^{n} \beta_i X_i + e$$

The equation for the general multiple linear regression model is above. This is a good use case for the equation environment. Lateral ETEX knows to expect math symbols inside the environment. What if you need more than one line? What if each line need to align? Thats when the align environment comes in handy. A lot of the times, you will need to show the simplification of equations or steps in calcualtions.

$$P_{s} = \frac{D*F}{N*P*I}$$

$$= \frac{D*R*W}{N*P*I} \text{ since } F = R*W$$

$$0.70 = \frac{1*R*0.1}{2.5*1*4,294,967,295}$$

$$R = 751619276625.0$$

$$A = \frac{R * 0.1}{4096} \implies A = 1835007.99$$

#### ALL ABOUT CITATIONS AND BIBTEX

Before diving into BibTex and how it all works, citing a figure or table that does not exist in the same subpage is also possible. Figure 1.1 is on page 2.

## § 2.1 The Bibliography

In this section, we are going to dive into how LaTeX automates your citations and generates your bibliography on the fly. That way if you make any additions or deletions, LaTeX will handle all of that.

## § 2.1.1 BibTex File Formatting

All of the citations will live in one file, in this case is called dissertation.bib. This file will have to follow a specific format. Each entry will start with an @ and following the type of entry. If it is a book, then it will start with @book{...}. Inside the brackets will contain all of the information about this entry. Fisrt it will have an ID that you will use to cite inside the tex files. Not sure of a convention, but each ID must be unique so something that pertains to the entry should suffice. There is a lot you can put with each entry, so here is a link to all the different types and the different attributes each entry can have. Each attribute inside the curly brackets needs to be separated by a comma, but each entry just needs to be on its own line and not separated by a comma.

## § 2.1.2 Loading BibTex File

If you look at the main file, *disseration.tex*, there are two places that involve the bibliography. First is at the top where the command is \usepackage [backend=biber, style=apa, sorting=nyt] {biblatex}. This lets you change the style and how the bibliography is sorted. Don't touch the *backend=biber*. The next command is \addbibresource{dissertation.bib} further down before the actual document begins. This does not neet to be touched because it also needs to be called the same as the main file, besides the extention. This is how the compiler knows which file to grab.

Then lets take a look at the very bottom of *dissertation.tex*, there will be two commands that are very important.

```
\addcontentsline{toc}{chapter}{Bibliography}
\printbibliography[title={Bibliography}]
```

Unless you want to change the title of the bibliography or sort the bibliography, then you may want to touch this. Other than that, there is no need to mess with these two lines of the file.

# § 2.2 Inline Citations

There are two commands that you will need to know. \cite & \parencite. The way these are used is when you use these commands, you need to have provide the ID of the specific entry in the bib file. \cite{article1} produces Whitmire et al., 2019 where as the other command adds parentheses around it. These will change when you change the style of the Bibliography from apa to mla or any other format. (Whitmire et al., 2019) (Navaud, 2011)

#### FOOTNOTES AND SIDENOTES

Dissertations will most likely include numerous side comments that are tangential to the main text. Generally, these are included in the document as footnotes or endnotes. With this template, you have the option to include them as *sidenotes*, meaning they appear in the margin of your page rather than at the bottom.<sup>1</sup> In this "chapter", we'll<sup>2</sup> weigh the benefits and drawbacks of sidenotes and show you how you can toggle between them in your document.

## § 3.1 Turning sidenotes on

The way to turn sidenotes on in this template is pretty straightforward. In the dissertation.tex file, you should find a command called sidenotetrue. All you need to do is delete that line of code and type sidenotefalse.

## § 3.2 List of changes

If you do choose to turn the sidenotes on, be aware that it makes a couple other changes to your document. This section lists those changes.

## § 3.2.1 Changes to the footnote command

The biggest change to your code is that the \footnote command has been recoded to now produce sidenotes. Specifically, the code that accomplishes this rewriting:

```
\renewcommand{\footnote}[1]{
    \sidenote{\RaggedRight\footnotesize #1}
}
```

This code essentially turns the \footnote function into a wrapper around the \sidenote function from the sidenote package. It also changes the default fully-justified behavior to "ragged right." Finally, it ensures the font size is footnote size.

<sup>&</sup>lt;sup>1</sup>Prior to 2020, this layout had not been used in a UGA dissertation. However, because of this LATEX template, the Graduate School and the format checkers approved the use of sidenotes specifically for us!

<sup>&</sup>lt;sup>2</sup>I'll mention that this chapter was written primarily by Joey Stanley, so you'll know who's talking when I express my typographical opinions.

<sup>&</sup>lt;sup>3</sup>With a sidenote margin so small, it's basically impossible to have good-looking text if it's forced to align to the left and right margins. Using RaggedRight from the ragged2e package does a nice job at making a narrow column of text look nice.

The reason for redefining \footnote rather than using \sidenote is becaue I wanted to make toggling between them as simple as possible. If you're three chapters into your dissertation and you decide you want to switch to the other layout, all you need to do is change one line of code. Had I required you to use \sidenote, you would have to change the one command and change all the \footnote commands to \sidenote. I think doing it this way makes sense.

## § 3.2.2 Changes to the page layout

If you have footnotes, the margins of your paper will be I inch on all sides, except for the bottom which is I.25 inches.<sup>4</sup>. The body of the text is therefore centered, and there is no difference between even- and odd-sided pages.

If you turn on the sidenotes though, we needed to make some extra room to accommodate them in the margin. To accomplish this, we had to reform the layout on the page.

The biggest change is that the body of the text is now off-center. For odd-sided pages (meaning it would appear on the right side when you lay the book open), it's shifted towards the left and for even-sided pages (the left side of a two-page spread), it's shifted towards the right. In other words, the text is shifted towards the spine of the book. This leaves some room for the margins, which are towards the edges of the book. Here are the default dimensions:

- The top margin is 1 inch and the bottom margin is 1.25 inches.
- Starting from the edge of the page (on an odd-sided page), the outer margin is 0.75 inches. This is the distance from the page to the edge of your sidenotes.
- The sidenotes themselves are 1.5 inches wide.
- There is a one-eighth inch space between the sidenotes and the body text.
- The body text itself is 4.375 inches wide.
- The inner margin is 1 inch.
- There is an additional "binding offset" of a quarter inch added to the inside margin to accommodate for printing. This basically just means that the inside margin is 1.25 inches.

The outer margin has to be a little bit narrower than the typical 1 inch to give the body text enough room. Because footnotes are left-justified, this is not as noticeable on odd-sided pages, though on even-sided pages it's a little more obvious.

<sup>&</sup>lt;sup>4</sup>This extra space is typograppically recommended to give the page a more balanced appearance.

<sup>&</sup>lt;sup>5</sup>Ideally, we'd make the paper wider so that it's slightly more square. Most books that use sidenotes today are like that. It gives a little extra width to the margins so the sidenotes aren't so narrow. Alas, we are constrained by UGA and Print & Copy in Tate since they can only bind specific paper sizes.

#### § 3.3 Details about how sidenote behavior

You should be aware of how the sidenotes behave, as they are implemented in this document. Sidenotes will be placed on the outer marin, but its their vertical positioning that may shift around.

By default, sidenotes will start on the same line as the sidenote *marker* (that is, the small superscripted number within the body of your text). If you use relatively few sidenotes, or if they're generally short, this is what you'll typically find.

The question then is what happens if a sidenote runs up against the bottom of the page. Like if the sidenote marker is on the bottom line of a page and the sidenote itself is several lines long. As expected, the position of the sidenote itself will simply shift up so that it doens't spill into the bottom margin. Under the hood, while it is important that a sidenote be near its marker, is is *more* important for the sidenote to not spill into the bottom margin, so that takes priority.

Similarly, if you have multiple sidenotes that are near each other, the notes themselves will not overlap. They'll reposition themselves vertically along the margin so that they're as close to their markers as possible without overlapping with each other or with a top/bottom margin.

For very long sidenotes, or for pages with many sidenotes such that they fill the margin completely, LATEX will do what it can to put it on the same page as the marker, but if it cannot, it will push it to the next page. For long footnotes, you may have seen them start on the correct page but spill over onto the next page—that behavior is unfortunately not possible with the current implementation of sidenotes in this template. For the most part this behavior is fine and readers typically are aware enough to look on the next page. However, be aware that should this next page be, say, the start of a new chapter, you'll get some unexpected sidenote placements.

For sidenotes that are so long that they cannot fit on a single page, it will cause an error in LaTeX and your document will not compile. If you typically have many very long sidenotes, it may be better to switch to a footnote layout.

#### § 3.4 Pros and Cons

With this information in mind, it's important to consider the pros and cons of using sidenotes.

## § 3.4.1 Why I love sidenotes

There are lots of reasons why I love sidenotes. First off, since they were popularized by statisticiaon Edward Tufte<sup>7</sup> in his books on data visualization, they've been used widely and are adopted by many typographers.

<sup>&</sup>lt;sup>6</sup>Here is a very long sidenote so you can get a feel for what it looks like. Lorem ipsum dolor sit amet, consectetur adipisicing 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. Lorem ipsum dolor sit amet, consectetur adipisicing 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.

<sup>&</sup>lt;sup>7</sup>Note that there is a tufte package that creates sidenotes. Because we did not necessarily want to use the other changes that package makes to the document, we chose not to use it here.

The reason is simple: they just look nice. Rather than your eye having to dart to the bottom of the page and back, sidenotes are *in situ*, and they do a nice job at making it easier for the reader to find them.

In addition to making the sidenotes themselves easier to find and read, increasing the margin on one side makes the body text a little narrower. The typical 6.5 inch body text with 10- or 12-point font is a little too wide. The narrower layout, together with an appropriate line spacing, makes for a sophisticated layout that's easier to read than what you might be used to in a dissertation.

Sidenotes are nice for putting some kinds of additional, non-textual information that are very vertical. It's possible to put a very narrow table, a very narrow image, or even a smaller image, 8 icon, or plot in a sidenote.

# § 3.4.2 Why you may not love sidenotes

First, as just mentioned, they're not ideal if you often use many long footnotes. If that's the case, you would probably be better off with the footnotes option.

Another small issue relates to how this particular template is structured. You can work on each chapter and compile each chapter individually. However, because the command that reorganizes the layout on the page is on the dissertation.tex file, when you compile just a single chapter, you don't get the right layout. This can be kind of annoying.

For certain things that may go in footnotes but are inherently wider, like formulas, computer code, extended quotations, data, numbered examples, or images, sidenotes are just too narrow. You're better off switching to footnotes if you make use of many of these. You may find a way to hack a one-off footnote if you need it for just one case.

Finally, because I've redefined \footnote to do sidenotes, it's not possible to include both footnotes and sidenotes within your document. I have seen some books do this, but I'm not sure why you would need both. Fortunately, this is an easy fix: you would just remove the code in dissertation.tex that redefines footnotes, and now you're free to use \footnote and \sidenote independently of each other. This behavior has not been tested so you're on your own as far as debugging goes.

#### § 3.5 Hacking some less common cases

#### § 3.5.1 Putting a plot in a sidenote

The code for the little plot I have in the sidenote above is this:

<sup>&</sup>lt;sup>8</sup>There's no need for an image to take up half a page when the information can be conveyed in tiny plot. Here's an actual

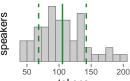


image I included in my dissertation, showing the distribution of a particular variable.

It was handy to be able to have several of these little guys scattered around in the margins rather than taking up a huge chunk of the page.

Note that because these are so small, there is no figure number assigned to them and there's no caption. Consequently, they will not appear in the "List of Figures" in your frontmatter if you have one.

 $\S 3.5.2$  Others?

TODO.

## ENTER TITLE HERE

Sed commodo posuere pede. Mauris ut est. Ut quis purus. Sed ac odio. Sed vehicula hendrerit sem. Duis non odio. Morbi ut dui. Sed accumsan risus eget odio. In hac habitasse platea dictumst. Pellentesque non elit. Fusce sed justo eu urna porta tincidunt. Mauris felis odio, sollicitudin sed, volutpat a, ornare ac, erat. Morbi quis dolor. Donec pellentesque, erat ac sagittis semper, nunc dui lobortis purus, quis congue purus metus ultricies tellus. Proin et quam. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos hymenaeos. Praesent sapien turpis, fermentum vel, eleifend faucibus, vehicula eu, lacus.

## **CONCLUSION**

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## **APPENDIX**

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