THE TITLE OF YOUR THESIS OR DISSERTATION GOES IN THIS SPACE TO LET US

KNOW WHAT YOUR DOCUMENT IS ABOUT

A Thesis

by

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Submitted to the Office of Graduate and Professional Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Chair of Committee,   Chair Name
Committee Members,   Committee Member 1
                     Committee Member 2
                     Committee Member 3
Head of Department,   Head of Department

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Major Subject: Mathematics

ABSTRACT

This is the first numbered page, lower case Roman numberal (ii). Page numbers are outside the prescribed margins, at the bottom of the page and centered; everything else is inside the margins.No bold on this page (Exception: heading ABSTRACT is bold if major headings are bold. *This LaTeX template applies to this exception*).

Text begins two double spaces below the major heading. Recommended length of text is no more than 350 words. Vertical spacing is double spaced or space-and-a-half. (*This LaTeX template applies double space for this ABSTRACT.*) The same margin settings and text alignment are followed else where in this thesis. There should be no numbered references or formal citations in ABSTRACT.

The content of this ABSTRACT provides a complete, succinct snapshot of the research, addressing the purpose, methods, results, and conclusions of the research. As a result, it should stand alone without any formal citations or references to chapters/sections of the work. To accomodate with a variety of online database, images or complex equations should also be avoided.

The next pages are Dedication, Acknowledgments, Contributors and Funding Sources, and Nomenclature. Of these, Contributors and Funding Sources is required. The rest are optional.

DEDICATION

To my mother, my father, my grandfather, and my grandmother. To see what happens with

multiple lines, I extend this next part into a second line.

ACKNOWLEDGMENTS

This section is also optional, limited to four pages. It must follow the Dedication Page (or Abstract, if no Dedication). If listing preliminary pages in Table of Contents, include Acknowledgments. Heading (ACKNOWLEDGMENTS) is bold if major headings are bold. It should be in same type size and style as text. So does vertical spacing, paragraph style, and margins. Also, ensure that the spelling of "acknowledgments" matches throughout the text and the table of contents.

I would like to thank the Texas A&M University Office of Graduate and Professional Studies to allow me to construct this LaTeX thesis template. Special thanks to JaeCee Crawford, Amy Motquin, Ashley Schmitt, Rachel Krolczyk, and Roberta Caton for carefully reviewing this material.

CONTRIBUTORS AND FUNDING SOURCES

Contributors

This work was supported by a thesis (or) dissertation committee consisting of Professor XXXX [advisor – also note if co-advisor] and XXX of the Department of [Home Department] and Professor(s) XXXX of the Department of [Outside Department].

The data analyzed for Chapter X was provided by Professor XXXX. The analyses depicted in Chapter X were conducted in part by Rebecca Jones of the Department of Biostatistics and were published in (year) in an article listed in the Biographical Sketch.

All other work conducted for the thesis (or) dissertation was completed by the student independently.

Funding Sources

Graduate study was supported by a fellowship from Texas A&M University and a dissertation research fellowship from XXX Foundation.

NOMENCLATURE

OGAPS   Office of Graduate and Professional Studies at Texas A&M University

B/CS   Bryan and College Station

TAMU   Texas A&M University

SDCC   San Diego Comic-Con

EVIL   Every Villain is Lemons

EPCC   Educator Preparation and Certification Center at Texas A&M University - San Antonio

FFT   Fast Fourier Transform

ARIMA   Autoregressive Integrated Moving Average

SSD   Solid State Drive

HDD   Hard Disk Drive

O&M   Eller Oceanography and Meteorology Building

DOS   Disk Operating System

HDMI   High Definition Multimedia Interface

L^1 Space of absolutely Lebesgue integrable functions; i.e., $\int |f| < \infty$

L^2 Space of square-Lebesgue-integrable functions, i.e., $\int |f|^2 < \infty$

$PC(S)$ Space of piecewise-continuous functions on S

GNU   GNU is Not Unix

GUI   Graphical User Interface

PID   Principal Integral Domain

MIP   Mixed Integer Program

LP   Linear Program

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1. INTRODUCTION AND LITERATURE REVIEW

1.1 Author's Message to the Student Using This Template For Their Thesis or Dissertation

Howdy! This is the template for theses and dissertations written using LaTeX for submission at Texas A&M University. The Office of Graduate and Professional Studies (OGAPS) is here to guide you in submitting your thesis or dissertation. This template shows the many features of LaTeX, with many more available to the user.

There are numerous guides, references, and tutorials available on the Internet to help you. If you are stuck, don't be afraid to conduct a Google search for your issue, or you can contact me at szroberson@exchange.tamu.edu or ogaps-latex@tamu.edu.

1.1.1 Brief Usage of the Template

This template is intended for use by STEM[1] students. If you are not a STEM student, this template is likely not for you.

The advantage of using this template over the Microsoft Word templates are numerous. First, there is a lot of control granted to the user in how the document looks. Of course, you are expected to still follow the guidelines set forth in the TAMU Thesis Manual. This template takes care of the margins, heading requirements, and front matter ordering for you.

Software to Install

MikTeX or **ProTeXt** is the free software recommended for Windows PC users to compile your LaTeX document. To compile for this document, XeLaTeX compiling engine is used. There is currently an issue in which the package xetex-def does not install; see the file README.txt for a solution. Another software called **JabRef** is also recommended for bibliography/reference management; its usage is similar with EndNote.

---

[1]Science, Technology, Engineering, and Mathematics. This is an example of a footnote. You can see that it is numbered and appended at the end of the page. Also, you can see the effect of having a multiline footnote.

Procedure to Compile LaTeX Document

This template (and consequently, your document) will be compiled using XeLaTeX. To compile your document, do the following[2]:

- In TeXstudio, go to the Tools menu, then select Commands, and click XeLaTeX.

- In Texmaker, go to the Tools menu and select XeLaTeX.

- For other editors, consult the help files included with the editor.

To view the output after the program is done compiling, press F7 in TeXstudio and TeXmaker or the appropriate hotkey for other editors. Be sure that the document is not open in another PDF reader, for your editor will not display it.

1.1.2 How to Fill This Document

The document structure is organized in the main .tex file, TAMUTemplate.tex, which has the same name as the output PDF file. Content in each section is in the data folder. You can open the .tex files under the data folder to modify. Four sections are added initially. To add in more sections into the LaTeXdocument, open the TAMUTemplate.tex file and go to **line 130** you can just delete the content in the data folder and fill your documents and then compile under TAMUTemplate.tex.)

1.1.3 Reference Usage and Example

This subsection tests the usage of references. The book[2] is referred in this way. Actually, the option is available for you to change the default way how reference appears. The default and most commonly used option [3] is displayed here [4].

Unrelated citations are referred here for the test of reference section only[**?**]. If you find that the reference [**?**] has more items than you need [5], question marks will show up in place of a reference handle, like these [**?**].

---

[2]Notice here that I also show off the itemize environment for unordered lists. Ordered lists use the enumerate environment.

1.1.4 Equations, Formulas, and Other Really Cool Math Things That LaTeX Can Do

Equations can be written in LaTeX in one of two ways. First, you can have material displayed inline by enclosing the desired statement in dollar signs. For example, $e^{i\pi} + 1 = 0$ is an inline math expression. Some longer expressions, especially those including sums, integrals, or large operators and objects can be displayed centered on their own line. In this **math mode**, you enclose the desired material in square brackets. For example,

$$\sum_{j=1}^{n} \int f_j \, dx = \int \sum_{j=1}^{n} f_j \, dx$$

is a math mode expression. We can also have a series of expressions aligned at a symbol. This is particularly useful when you are showing details in solving an equation or evaluating an integral. The next block shows off the *align** environment. We use it here to show a distributive property of set intersections over unions. Observe how each line is aligned to the biconditional symbol. This makes reading steps easier, since a reader can go line by line and determine why each step is justified.

$$x \in A \cap \bigcup_j B_j \iff x \in A \land x \in \bigcup_j B_j$$
$$\iff x \in A \land x \in B_k \text{ for some k}$$
$$\iff x \in \bigcup_j A \cap B_j$$

There are many more commands and features available, but this document is too small to contain them.[3] Many guides are available on the Internet for your use.

1.1.5 A Test Section

This is just a test. Below is a figure displaying some Haskell code in a compiler.

---

[3] Yes, I pulled a Fermat. But really, a Google search will likely help you find what you need to do.
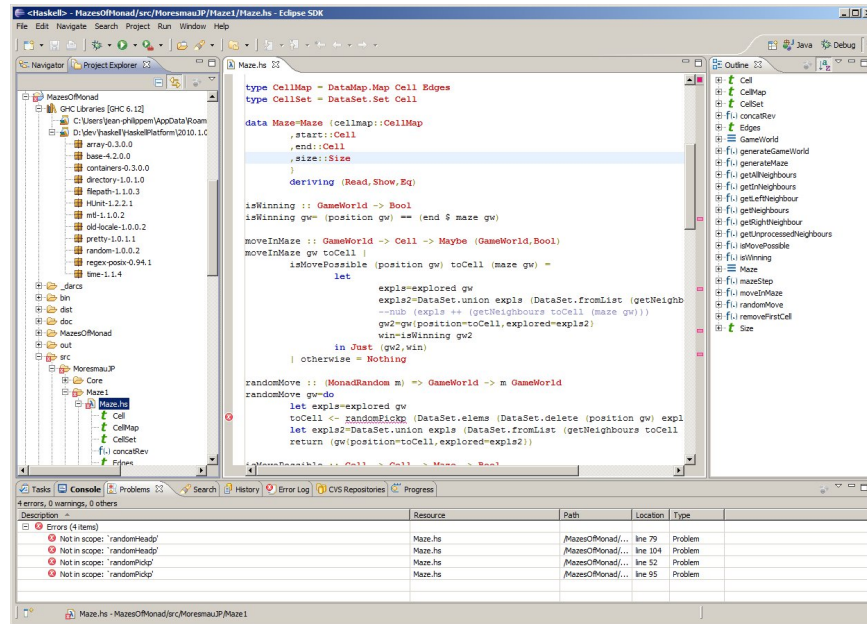
Figure 1.1: Some Haskell code in a compiler.

This template has been designed for use in modern systems, but can perhaps be adapted to work on older systems, such as Windows 95. Below is a screenshot of a DOSBox console, an MS-DOS emulator designed to work on several platforms. Windows 95 can be installed into DOSBox, but it is not suggested.
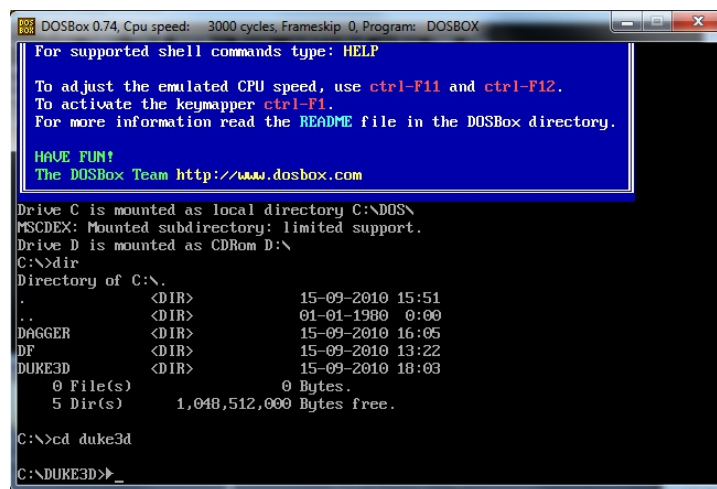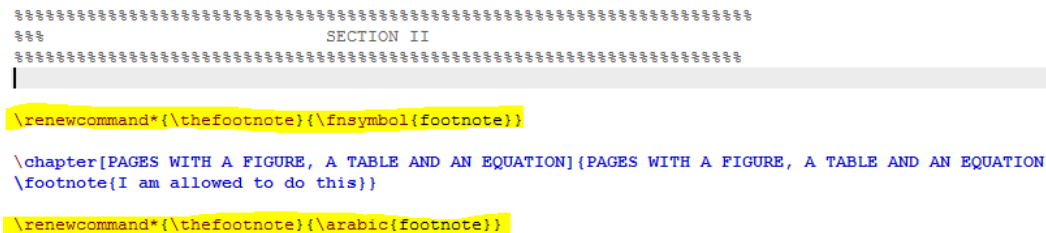
Figure 1.2: The DOSBox console running in Windows 7. The contents of the mounted directory C: are displayed, with the active subdirectory DUKE3D.

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1.2 Specifications in This TAMU LaTeX Template

All requirements for theses can be found in the most recent version of the Thesis Manual, available at the OGAPS website. The Thesis Office will be happy to assist you if you have questions about formatting. Questions specific to LaTeX should be directed to `ogaps-latex@tamu.edu`.

A common question students ask is the placement of a copyright statement at the beginning of a section with reprinted material from a previously printed source. The screenshot below describes how to achieve this. Check the instruction files for more details.

Figure 1.3: The inclusion of a copyright statement as a footnote. The lines in yellow help to change to footnote marking scheme.

1.2.1 Another Test Section

There should be things here.

1.2.1.1 Test

Hello, is it me you're looking for?

1.2.1.2 Test 2

There are more things to do.

1.2.2 Yet Another One

She called me late last night to say she loved me so. We insert a slew of figures in the remainder of the document to test the look of the List of Figures.
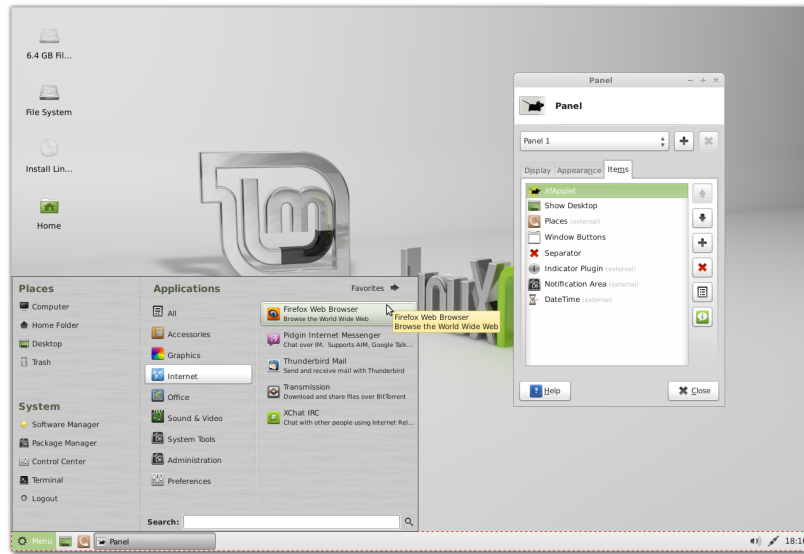
Figure 1.4: Linux Mint 13 with the XFCE desktop environment.

Another figure follows below.
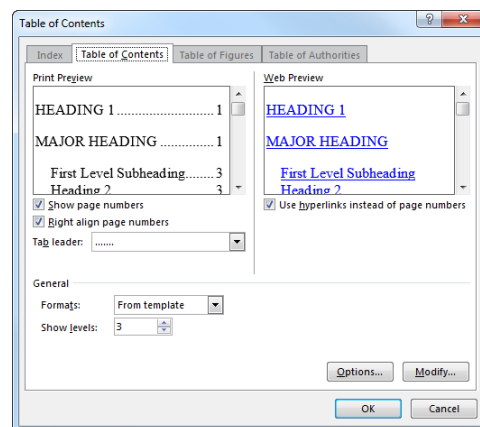
Figure 1.5: The "Table of Contents" dialog box in Microsoft Word. This must be accessed to properly generate the Table of Contents when using the Recommended Template.

Yet another figure follows - the last for this section.

Figure 1.6: Linear regression on three (top) and four (bottom) independent variables in base R.

1.2.3 No Surprises Here

Insert another song lyric here.

2. PAGES WITH A FIGURE, A TABLE AND AN EQUATION

2.1 Figures: Placement, Size, and Captions

This is a figure template.
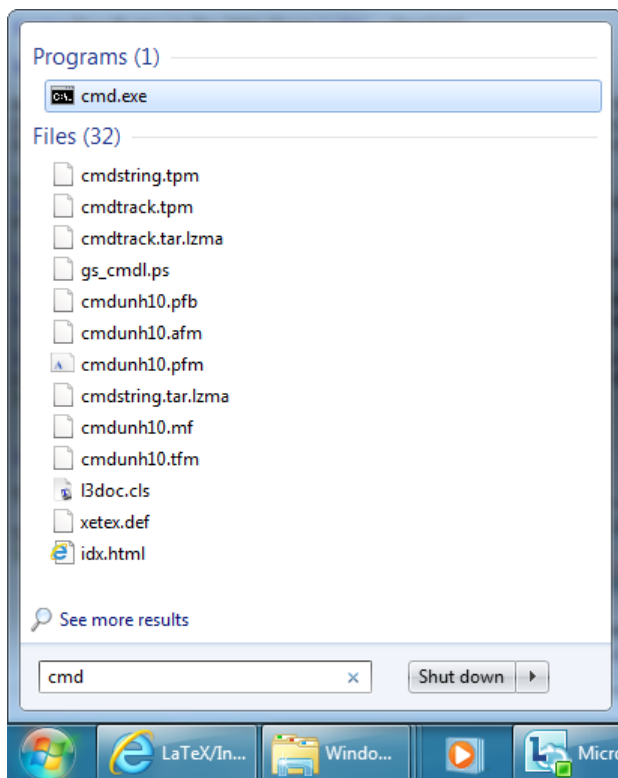
Figure 2.1: The command line compiler in Windows. It is not suggested that you compile using this method. See compilation instructions in the README.

Figure (and table) titles should be consistent through the document. All captions should be placed either above or below the object it describes. This is done by placing the *caption* in the correct place. While continued figures are allowed by the Thesis Manual, it is not suggested that any continued figures be included in a LaTeX document. The figure below is from Linux Mint, showing a portion of a desktop.
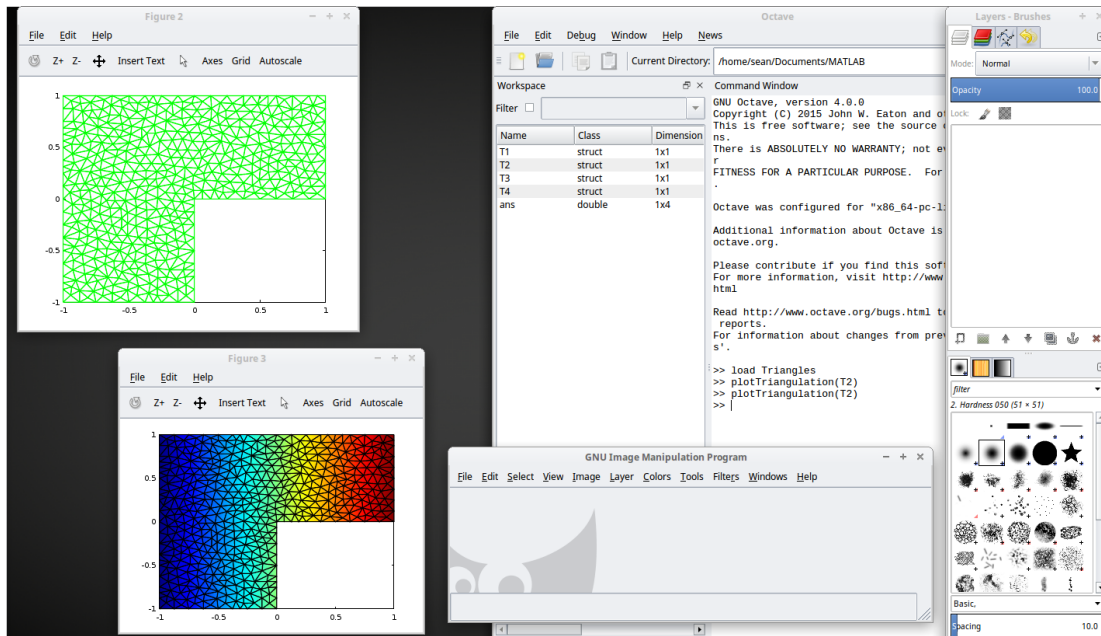
Figure 2.2: A typical desktop space in Linux Mint.

The figure below is taken from R. While there are packages available to import graphics from R, MATLAB, and similar software, it is probably best to export plots generated by these programs as a PNG file, and then import it via the *includegraphics* command.

Series diff(econ$unem_rate)
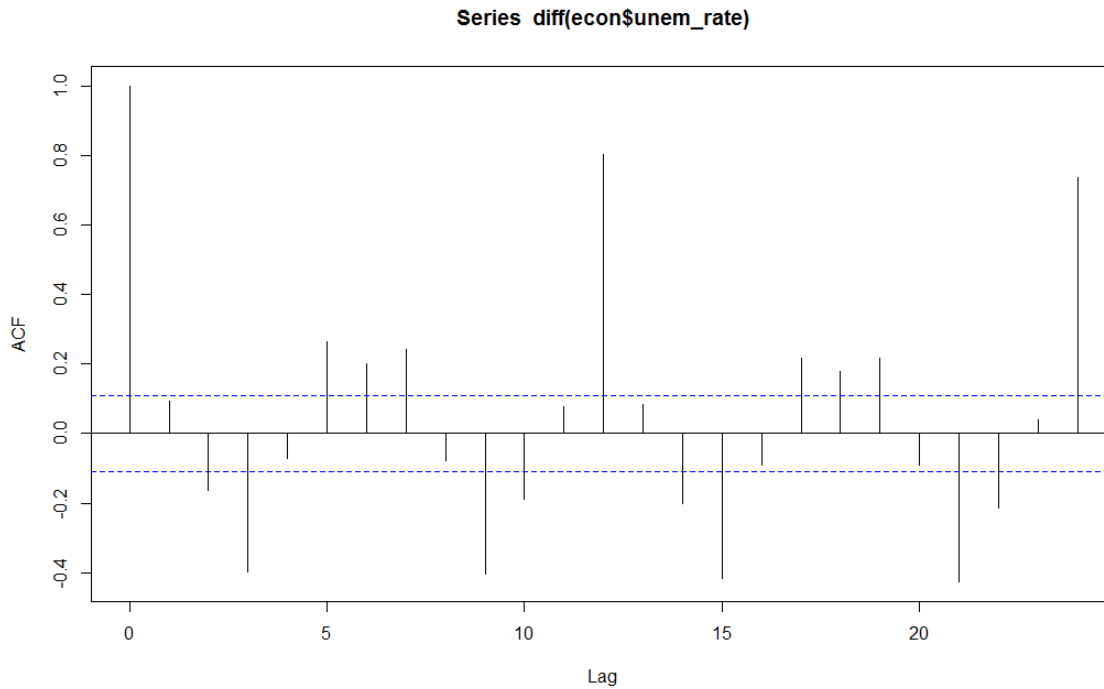
Figure 2.3: The autocorrelation function (ACF) of the differenced unemployment series. Seasonal adjustments may be needed.

It is highly suggested that you scale the figures so that they fit within the margins. Almost all the figures included in this document for the sake of example have been scaled. It is best to use PNG and JPEG files as figures.

The last figure here is a screenshot from the Linux terminal.

Figure 2.4: The Linux terminal. The commands shown are from a two-dimensional mesh generator that triangulates a domain in the plane. Files containing nodes, elements, the polygon, and the edges are created.

2.2 Table Placement, Size and Table Title

Here is a table, displaying band and auxiliary scores from the 2011 Arcadia Festival of Bands held in Arcadia, CA [6].

School Name	Band Score	Auxiliary Score
Rancho Bernardo	96.15	89.15
Mt. Carmel	95.30	83.55
Riverside King	93.85	91.75
Diamond Bar	93.20	88.60
El Dorado	92.80	95.45
Chino	92.65	91.45
Henry J. Kaiser	92.60	87.55
Glendora	92.60	89.15
Montebello	90.50	82.70
Mira Mesa	89.65	91.50

Table 2.1: Scores from the 2011 Arcadia Festival of Bands.

The table is sorted by band score. There is more text here to demonstrate how the template handles spacing between tables and body text. Also note how the table caption is in a smaller font size than the body text.

2.3 Equations

The following format is recommended to be used to display equations.

$$y = c_1 \cos(t) + c_2 \sin(t) \tag{2.1}$$

$$e^{it} = \cos(t) + i \sin(t) \tag{2.2}$$

Equation 2.1 is the general solution to the differential equation $y'' + y = 0$. In the source code, the *ref* command allows you to refer to an equation by a label you created. References must be made after the equation has been created; attempting to refer to an equation before it is defined results in a question mark placeholder. Some more sample equations are below. Notice the first set below is not numbered.

$$\log(x^n) = \log(x \cdot x \cdot \ldots \cdot x)$$
$$= \log x + \log x + \ldots + \log x$$
$$= n \log x$$

$$X^T X \mathbf{u} = X^T \mathbf{y} \tag{2.3}$$

$$u(x,t) = \int_{-\infty}^{\infty} G(x,\tau) \exp\left(-\frac{(t-\tau)^2}{4kt}\right) d\tau \tag{2.4}$$

$$\mathcal{L}(f) = \int_0^{\infty} e^{-st} f(t) \, dt \tag{2.5}$$

$$\mathcal{F}(f) = \frac{1}{2\pi} \int_{-\infty}^{\infty} e^{i\omega x} f(x) \, dx \tag{2.6}$$

You can use labels to refer to equations you create. 2.6 is the **Laplace transform** used exten-

sively in differential equations. 2.3 is the matrix representation of the **normal equations** used in least-squares regression.

To have equations without labels appearing the right margin, simply add an asterisk to the name of the environment (equation, align, etc.) when making the declaration.

2.4 Theorems and Proofs: Examples

This section will show an example usage of the theorem and proof environments, typically used for mathematics students. To use these environments, you must have the package **amsthm** declared in the preamble of your document. For this template, this is already declared in the main file. You may choose to remove this declaration if your document will not make use of theorems and proofs.

Theorems can be numbered, as the one below is, or you can force a different label to appear. For example, you can state the Bolzano-Weierstass theorem and have the names appear as the theorem label. See the examples below.

Sometimes you may have a theorem with multiple parts or multiple conditions. You can use other list environments, such as enumerate, inside the theorem environment declared to list these conditions. The final example at the end of this block shows this with the Invertible Matrix Theorem, which has several equivalent statements.

Theorem 1. *Suppose f is of class $\mathcal{C}^1$ and g is of class $\mathcal{C}^2$, and that the compact set D and its boundary satisfy the hypotheses of Green's Theorem. Then*

$$\iint_D f\nabla^2 g \, dA = \oint_{\partial D} f(\nabla g) \cdot \mathbf{n} \, ds - \iint_D \nabla f \cdot \nabla g \, dA.$$

Proof. Begin with the integral of $f\nabla g \cdot n$ taken over the boundary of D. By the second vector form

of Green's Theorem,

$$\oint_{\partial D} f \nabla g \cdot n \, ds = \iint_D \nabla \cdot (f \nabla g) \, dA$$
$$= \iint_D f \nabla^2 g + \nabla f \cdot \nabla g \, dA.$$

Rearranging yields the desired. □

Theorem 2 (Bolzano-Weierstrass). *Every bounded real sequence has a convergent subsequence.*

Theorem 3 (Invertible Matrix Theorem[1]). *For any square matrix A with n rows and columns, the following are equivalent.*

1. *A is invertible.*

2. *The equation $A\mathbf{x} = \mathbf{0}$ has only the trivial solution $\mathbf{x} = \mathbf{0}$.*

3. *For any nonzero $\mathbf{b}$, $A\mathbf{x} = \mathbf{b}$ has exactly one solution.*

4. *The columns of A form a linearly independent set.*

5. *Zero is not an eigenvalue of A.*

6. *A has full rank.*

7. *The determinant of A is not zero.*

There is currently no set format on how propositions and theorems should be laid out in the document. The idea is to remain consistent. It is best to not customize the appearance of theorems so that they can easily be distinguished from body text - just like figures, tables, and headings.

2.5   Another Table Example

For the sake of testing the appearance of the list of tables, a second table will be displayed here. This table displays a list of some major universities and their enrollments during fall 2015. This table is sorted in descending order of enrollment.

---

[1]This is an incomplete list.

School	City and State	Fall 2015 Enrollment
Texas A&M University[2]	College Station, TX	64,376
Ohio State University[3]	Columbus, OH	58,322
Iowa State University	Ames, IA	36,001
University of California, San Diego	La Jolla, CA	33,735
University of West Florida	Pensacola, FL	12,798
Massachusetts Institute of Technology	Cambridge, MA	11,319

Table 2.2: Some major universities and their fall 2015 enrollments.

Naturally, tables and footnotes do not go together. If you attempted to write a footnote inside a table, there will be nothing at the bottom of the page, yet the footnote marker will still appear. To remedy this, the *footnote* package has been loaded from the *mdwtools* package. Check your TeX distribution to see if *mdwtools* is installed. See the source code for how this is implemented.

Here are some blank floats.

Figure 2.5: A blank float.

Figure 2.6: Another blank float.

---

[2]Gig 'em!

[3]This number describes enrollments at the Columbus campus; enrollments at regional campuses in Lima, Mansfield, Marion, Newark, and Wooster are not counted.

3. VERY, VERY, VERY LONG TITLE THAT FLOWS INTO A SECOND LINE FOR THE SAKE OF EXAMPLE

Notice that the title of this section is long - much longer than the others. When you have long section titles, this template takes care of double spacing the lines in the title. If the title is long to fit in the table of contents, the template will single space the title.

3.1 Yet Another Table

Another table is placed here to show the effect of having tables in multiple sections. The list of tables should still double space between table titles, while single spacing long table titles.

Dates	Attendance
August 8-10, 2008	3,523
August 14-16, 2009	4,003
July 9-11, 2010	5,049
August 5-7, 2011	6,891
August 10-12, 2012	9,464
August 16-18, 2013	11,077
July 18-20, 2014	14,686
July 31-August 2, 2015	18,411

Table 3.1: San Japan attendance. Data is taken from [1]. I intentionally make the title of this table long so the single space effect is seen in the list of tables.

You may be wondering why San Japan was chosen. There are a few reasons as to why I did this:

1. It is one of the fastest-growing anime conventions in Texas.

2. Filler.

3. I wanted a good variety of table examples.

4. Because conventions are cool.

The *enumerate* environment was used to generated an ordered list above.

3.2 Section Test Example

We insert another figure here, just for kicks.
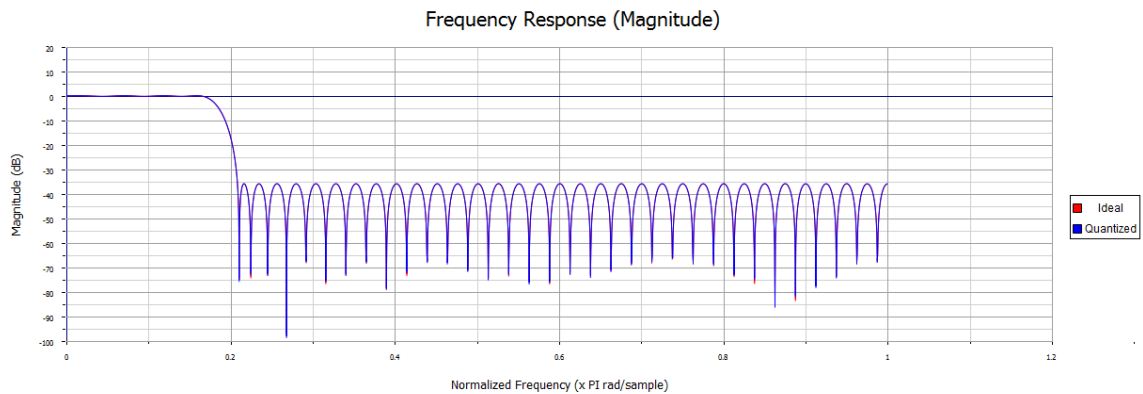
Figure 3.1: A low pass filter design.

3.2.1 Filler, Filler, Filler

This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document.

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Figure 3.2: A typical Texmaker workspace in Windows 7. The right sidebar displays the current file's structure according to the subsections in place.

few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document.

Figure 3.3: Some commands in R.

3.2.2 Subsection Test Example

Test subsection for TOC display

3.2.3 Subsection Test Example 2

This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document.

Figure 3.4: The logo of a familiar university.

3.2.4 Section Summary

This holds the summary. Well, not really a summary - there was a lot of filler in this section.

Figure 3.5: Yet another blank float that has no purpose. This is only to test the appearance of the Lists of Figures and the List of Tables.
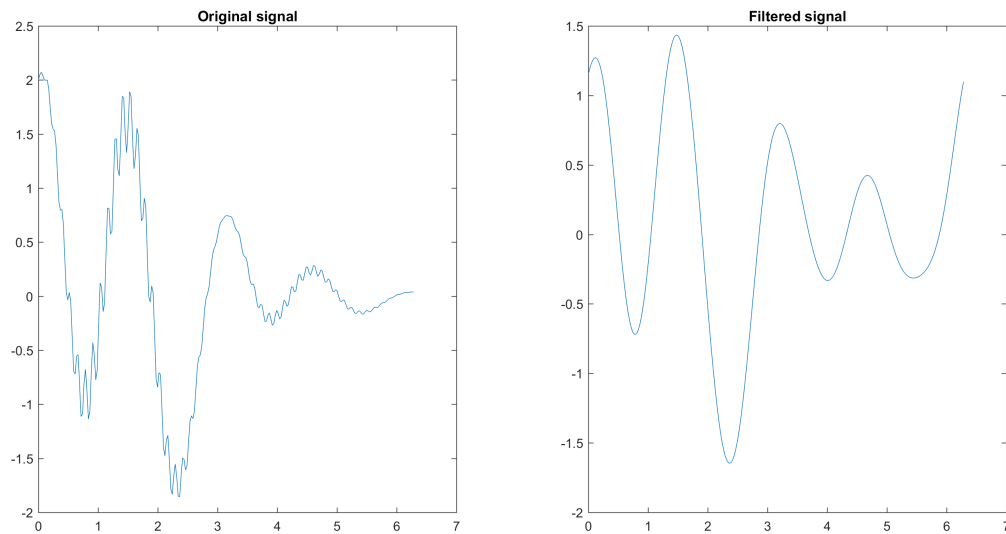
Figure 3.6: A signal and the result after a basic filter. The FFT was used to create the plot on the right.

3.3 Section Test Example 3

Test section for toc display only.

Figure 3.7: There is nothing to see here.

Figure 3.8: There is another float here. I wonder what could be here? Guess what? Nothing! There is no material in this float.

3.3.1 Subsection Test 1

Test subsection for toc display only.

3.3.2 Subsection Test 2

Test subsection for toc display only.

4. SUMMARY AND CONCLUSIONS

The summary goes here, along with your conclusions. The title of this final chapter/section must contain the words "summary" or "conclusions."

Here, I attempt to fill the section with more figures, possibly more tables. The inclusion of these floats is to manipulate the list of figures and list of tables in order to see when the inconsistent spacing begins. It is important to remember that any images you wish to use are placed in the appropriate directory inside the folder in which the project is kept. In the original template, all the images used as figures here are placed in the subdirectory *graphics*, as declared in the preamble of *TAMUTemplate.tex*. If you wish to use any other directories, be sure to declare them in the preamble of *TAMUTemplate.tex*. See the figure below on how to declare directories.

```
%This package allows for the use of graphics in the
%document.
\usepackage{graphicx}

%If you have JPEG format images, add .jpg as an
%allowed file extension below. Same for Bitmaps (.bmp).
\DeclareGraphicsExtensions{.png}

%It is best practice to keep all your pictures in
%one folder inside the main directory in which your
%TeX file is kept. Here the folder is named "graphic."
%Replace the name here with your folder's name, if needed.
%The period is needed due to relative referencing.
\graphicspath{ {./graphic/} }
```

Figure 4.1: Declaring graphics directories.

This version of the template now has a section to place any packages that you are using - see the figure below.

More figures will be inserted, with some text between them.

This section has filler text. These words serve no meaning except to fill a few lines in the

```
78    %For figures and tables.
79    \usepackage{float}
80
81    %To customize captions in floats.
82    \usepackage{caption}
83
84
85
86    %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
87    %Please place all your personal packages here. Check to
88    %see if the packages you wish to use are not already
89    %declared above. Placing all your personal packages
90    %here allows me to determine if there are any package
91    %issues in compilation, as well as any conflicts
92    %that may arise by the order of loading.
93    %--Sean Zachary Roberson
94    %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
95    %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
96    %Begin student defined packages.
97    %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
98
99
100   %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
101   %End student defined packages.
102   %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

Figure 4.2: The place to declare any packages you require that I have not already declared. This simplifies debugging.

document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document.

Figure 4.3: Two points on the unit circle and their corresponding position vectors.

This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no

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Figure 4.4: Changing the method of compilation for XeLaTeX in TeXstudio.

meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These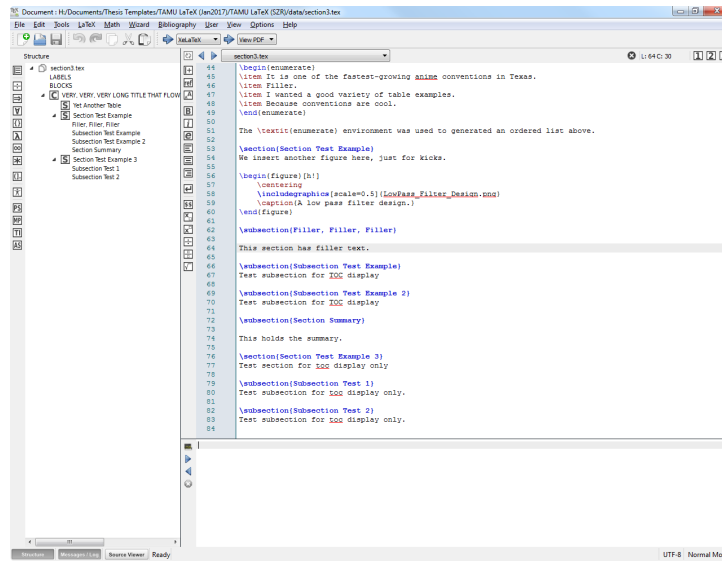 words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document. This section has filler text. These words serve no meaning except to fill a few lines in the document.

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II. Changes and Fixes
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(V3.17.01) The following changes were made:

-Fixed issue with adding fourth-level subheadings with the
\subsubheading command. This is formatted as italicized,
left-justified text. An example is included in the body
of the example template. Notice that this subheading
will not appear in the Table of Contents, but settings
can be changed to allow for this to appear.

-Restrucutred the preamble of TAMUTemplate.tex to include
a space for student-loaded packages. It is strongly
suggested to place any other packages in this space to
allow for easier troubleshooting.

The following items still need to be fixed:

-Spacing in LoF/T (List of Figures/Tables) for documents
with many figures and tables. Manual fixed will need to
be implemented for this.

-The Chapter Method is still a work in progress. A new
update will be released when this is implemented.

-Font choices.

(V3.16.10) The following changes were made:

- Adjusted compilation of the bibliography. Dependence on
the file bibliography.tex has been removed.

- Removed duplicate \bibliographystyle{} command.

(V3.16.09) The following items have been added:

- A new section, titled "Contributors and Funding
Sources," has been added to the template. Beginning
in Fall 2016, all theses and dissertations should
include this section, even if no external funding was
provided. Instructions on how to complete this section
are included in the file Contributors.tex.

- The preexisting template has been merged with a
previous version that addresses spacing issues. All
formatting should be correct; any discrepencies will be
addressed in a future release.

- Some of the example content in the body has changed
```

Figure 4.5: A portion of the changelog in the README for this document. This is located in the root directory.

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4.1 Challenges

Section here is to test toc display only.

4.2 Further Study

Section here is to test toc display only.

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APPENDIX A

FIRST APPENDIX

Text for the Appendix follows.

Figure A.1: TAMU figure

APPENDIX B

A SECOND APPENDIX WHOSE TITLE IS MUCH LONGER THAN THE FIRST

Text for the Appendix follows.

Figure B.1: Another TAMU figure.

B.1 Appendix Section

B.2 Second Appendix Section