AN EXAMPLE THESIS DONE WITH LaTeX WITH A VERY LONG TITLE IN THE COLLEGE OF TECHNOLOGY

A Thesis Proposal

Submitted to the Faculty

of

Purdue University

by

Mark D. Senn

In Partial Fulfillment of the

Requirements for the Degree

of

Master of Science

December 2012

Purdue University

West Lafayette, Indiana

This is the optional dedication. The dedication usually consists of a name or cause as in:

Dedicated to my grandmother.

ACKNOWLEDGMENTS

This is the optional acknowledgments section. Most theses include brief statements of appreciation or recognition of special assistance as in:

I wish to gratefully acknowledge my thesis committee for their insightful comments and guidance and my family for their support and encouragement.

PREFACE

This is the optional preface.

A preface includes introductory remarks here regarding reasons for undertaking this work and method of research.

Since everyone knows you're writing this document to get your degree, don't put that here. If your research was done to solve a problem that came up in industry, you may want to put that here.

If not obvious from the rest of your thesis, you may want to describe your method of research here.

Acknowledgements go in the "Acknowledgments" section and do not belong here.

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SYMBOLS

m mass

v velocity

ABBREVIATIONS

abbr	abbreviation
bcf	billion cubic feet
BMOC	big man on campus
AT	Aviation Technology
BCM	Building and Contruction Management
CGT	Computer Graphics Technology
CIT	Computer and Information Technology
CoT	College of Technology
ECET	Electrical and Computer Engineering Technology
MET	Mechanical Engineering Technology
TLI	Technology Leadership and Innovation

NOMENCLATURE

Alanine	2-Aminopropanoic acid
Valine	2-Amino-3-methylbutanoic acid

GLOSSARY

chair	the person in charge of a meeting or organization
chick	female, usually young
dude	male, usually young

ABSTRACT

Senn, Mark D. M.S., Purdue University, December 2012. An Example Thesis Done with LaTeX with a Very Long Title in the College of Technology. Major Professor: James L. Mohler.

The first paragraph must contain your name as it appears on the title page but with the last name first, the abbreviation of the degree title, the name of the institution granting the degree, the month and year the degree is awarded, the title of the thesis, and the name(s) of your major professor(s). This paragraph is automatically generated by LaTeXbased on the information you provided in thesis.tex. Follow the first paragraph with a statement of your thesis problem, a brief exposition of the research and a condensed summary of your findings.

CHAPTER 1. INTRODUCTION

This is a sample introduction that you should change to fit your thesis topic. This is another sentence in the very beginnings of the introduction. Note that the first paragraph after a heading is not indented.

This is a sentence. This is a sentence.

1.1 Scope

This paper critically examines why you should write your thesis using LaTeXin the College of Technology.

This is a sentence.

1.2 Significance

This is a significant sentence.

1.3 Research Question

What is your research question?

1.4 Assumptions

The assumptions for this study include:

- first
- second
- third

1.5 Limitations

The limitations for this study include:

- first
- second
- third

1.6 Delimitations

The delimitations for this study include:

- first
- second
- third

1.7 Definitions

In the broader context of thesis writing, we define the following terms:

LaTeX: A typesetting application that makes really impressive looking documents

Purdue University: (commonly: *Purdue*) A public university founded in 1869

Boilermakers: Purdue University's official mascot

1.8 Other Stuff

1.8.1 Thesis

A long research paper used to satisfy requirements for a Master's Degree.

1.8.2 Thesis Proposal

The proposal for the thesis.

1.8.3 Dissertation

A longer research paper used to satisfy requirements for the Doctor of Philosophy (Ph.D.) degree.

1.8.4 Dissertation Proposal

The proposal for the dissertation.

1.9 Summary

This chapter provided the scope, significance, research question, assumptions, limitations, delimitations, definitions, and other background information for the research project. The next chapter provides a review of the literature relevant to “your thesis”.

CHAPTER 2. REVIEW OF RELEVANT LITERATURE

This chapter provides a review of the literature relevant to something awesome (e.g. your thesis!).

2.1 Section

A section...

2.1.1 Subsection

A subsection...

2.1.1.1. Subsubsection

A subsubsection... (Note the use of the
ip command in the source text to handle indentation correction.)

2.2 Summary

This chapter provided a review of the literature relevant to something awesome. The next chapter provides the framework and methodology to be used in the research project.

CHAPTER 3. FRAMEWORK AND METHODOLOGY

This chapter provides the framework and methodology to be used in the research study.

3.1 Study Design

This study blah, blah, blah...

3.2 Unit & Sampling

The following sections will discuss the hypotheses, population, sample(s), variables, and the measure for success.

3.2.1 Hypotheses

More blah, blah, blah...

The hypotheses for this study are the following:

H_0: This is the null hypothesis.

H_α: This is an example alternate hypothesis.

3.2.2 Population

This discusses the population.

3.2.3 Sample

This discusses the sample.

3.2.4 Variables

This discusses the variables.

3.2.5 Measure for Success

This discusses the criterion for what constitutes a "success" (i.e. what criterion are required to reject H_0?).

3.3 Summary

This chapter provided the framework and methodology to be used in the research study. The next chapter provides whatever is supposed to be in Chapter 4.

CHAPTER 4. SUMMARY

This is the summary chapter.

CHAPTER 5. RECOMMENDATIONS

Buy low. Sell high.

APPENDICES

CHAPTER A. DEMONSTRATE CITATIONS

I typed

```
For \LaTeX\ answers I refer to
% note to self: {\em \LaTeX: A Document Preparation System\/}
\cite{Lamport:1994}
and then to
% note to self: {\em The \LaTeX\ Companion\/}
\cite{Goossens:1994}
or
% note to self: {\em A Guide to LaTeX\/} (1999)
\cite{Kopka:1999}.
% note to self: {\em A Guide to LaTeX\/} (1999)
\cite{Kopka:1999}
is an updated edition of the 1995 edition
\cite{Kopka:1995}.
```

to get

For LaTeX answers I refer to Lamport (1994) and then to Goossens, Mittelbach, and Samarin (1994) or Kopka and Daly (1999). Kopka and Daly (1999) is an updated edition of the 1995 edition Kopka and Daly (1995).

CHAPTER B. DEMONSTRATE FIGURES

The `h` specifier used in all the examples below tells LaTeX to put the figure "here" instead of trying to find a good spot at the top or bottom of a page. Specifiers can be combined, for example, "`\begin{figure}[htbp!]`".

The complete list of specifiers:

Specifier	**Description**
`b`	bottom of page
`h`	here on page
`p`	on separate page of figures
`t`	top of page
`!`	try hard to put figure as early as possible

Label "fi:not-centered" is "B.1". Label "sf:four-parts-c" is "B.5(c)".

This is the first paragraph. This is the first paragraph. This is the first paragraph. This is the first paragraph. This is the first paragraph.

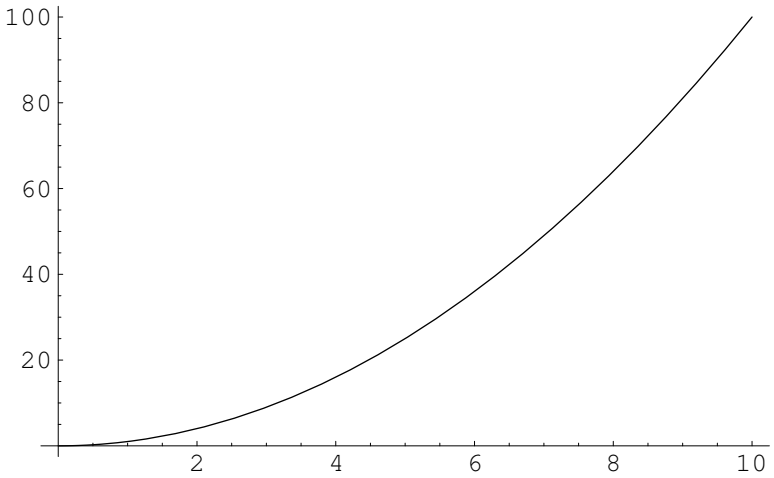

Figure B.1. By default figures are not centered. This is a long caption to demonstrate that captions are single spaced.

This is the second paragraph. This is the second paragraph. This is the second paragraph. This is the second paragraph. This is the second paragraph.

This is the second paragraph. This is the second paragraph. This is the second paragraph. This is the second paragraph. This is the second paragraph.

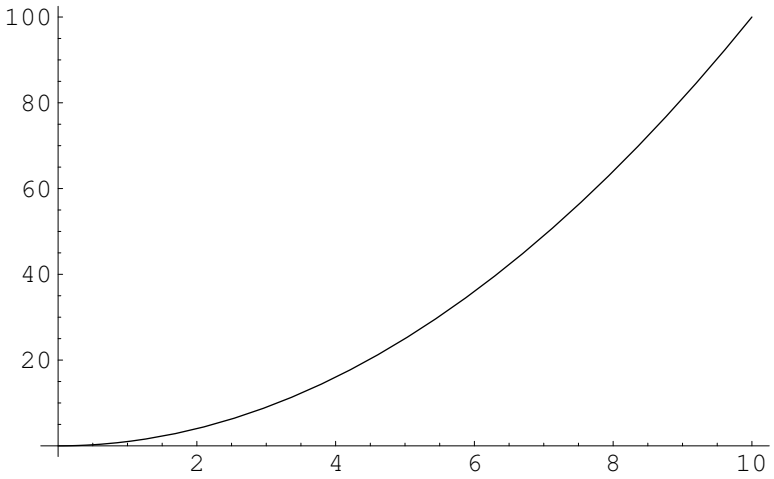

Figure B.2. Use `\centering` to center figures.

This is the third paragraph. This is the third paragraph. This is the third paragraph. This is the third paragraph. This is the third paragraph. This is the third paragraph. This is the third paragraph. This is the third paragraph. This is the third paragraph. This is the third paragraph. This is the third paragraph. This is the third paragraph. This is the third paragraph. This is the third paragraph.

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This is the sixth paragraph. This is the sixth paragraph. This is the sixth paragraph. This is the sixth paragraph. This is the sixth paragraph. This is the sixth paragraph. This is the

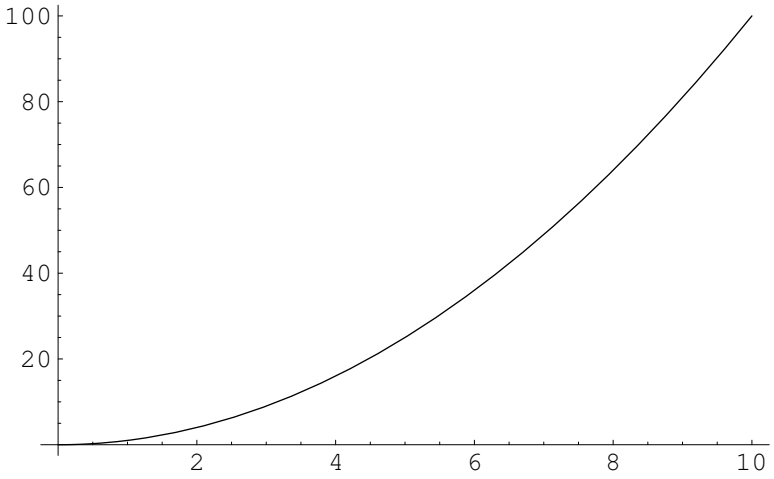
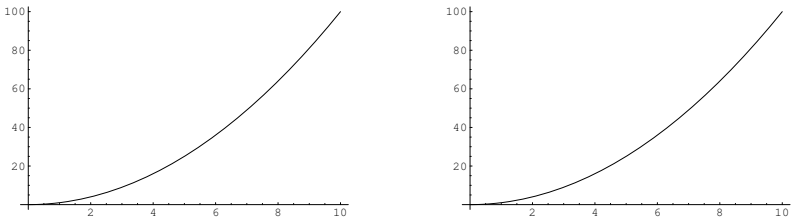


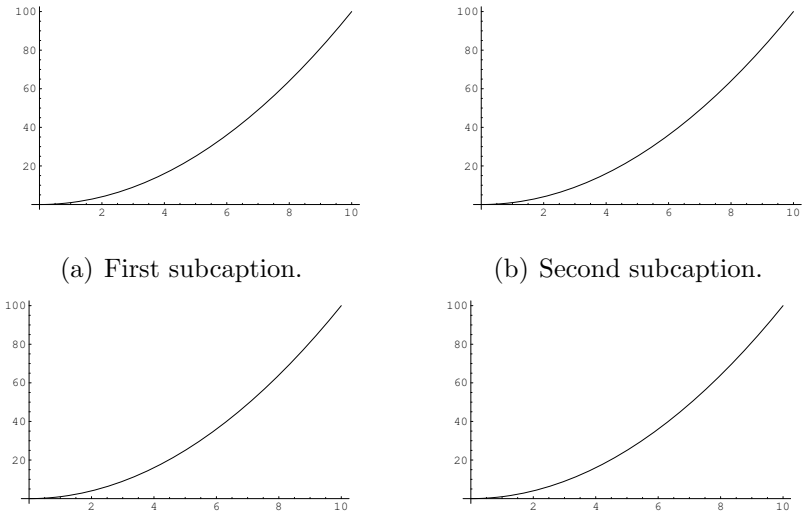
Figure B.3. This is another figuure.



(a) First subcaption. (b) Second subcaption.

Figure B.4. This figure has two parts.

sixth paragraph. This is the sixth paragraph. This is the sixth paragraph. This is the sixth paragraph. This is the sixth paragraph.



(a) First subcaption.

(b) Second subcaption.

(c) Third subcaption.

(d) Fourth subcaption.

Figure B.5. This figure has four parts.

```
% From _More Math Into LaTeX_, 4th Edition, page 152:
%     TeX uses $$ to open and close a displayed math environment.
%     In LaTeX, this may occassionally cause problems.  Don't do it.
\[
    E = mc^2
\]
```

$$E = mc^2$$

```
\begin{equation}
    E = mc^2
\end{equation}
```

$$E = mc^2 \tag{C.1}$$

```
% Mydefs.tex defines \be to be \begin{equation} and
% \ee to be \end{equation}.
\be
    E = mc^2
\ee
```

$$E = mc^2 \tag{C.2}$$

```
\be
    x = -\frac{b}{2a} \pm \frac{\sqrt{b^2 - 4ac}}{2a}
\ee
```

$$x = -\frac{b}{2a} \pm \frac{\sqrt{b^2 - 4ac}}{2a} \tag{C.3}$$

```
% requires \usepackage{amsmath}; use align* for no equation number
\begin{align}
    a = {}& b + c\\
    x = {}& y + z
\end{align}
```

$$a = b + c \tag{C.4}$$
$$x = y + z \tag{C.5}$$

```
\[
    Z = \left(
        \begin{array}{cc}
            a& b\\
            c& d
        \end{array}
    \right)
\]
```

$$Z = \left(\begin{array}{cc} a & b \\ c & d \end{array} \right)$$

```
\begin{equation}
    \begin{split}
        a = {}& b + c\\
            {}& + d + e
    \end{split}
\end{equation}
```

$$\begin{aligned} a &= b + c \\ &\quad + d + e \end{aligned} \tag{C.6}$$

```
\be
    (\cos x)^2 + (\sin x)^2 = 1
\ee
```

$$(\cos x)^2 + (\sin x)^2 = 1 \tag{C.7}$$

```
If $X = \cos x$ and $Y = \sin x$ then $X^2 + Y^2 = 1$.
```

If $X = \cos x$ and $Y = \sin x$ then $X^2 + Y^2 = 1$.

CHAPTER D. DEMONSTRATE MULTICOLS

This is one column. This is one column.

This is two columns. This is two columns.

This is three columns. This is three columns.

This is four columns. This is four columns.

This is five columns. This is five columns. This is five columns. This is five columns. This is five columns. This is five columns.	This is five columns. This is five columns. This is five columns. This is five columns. This is five columns. This is five columns.	columns. This is five columns. This is five columns. This is five columns. This is five columns. This is five columns.	This is five columns. This is five columns. This is five columns. This is five columns. This is five columns. This is five columns.	columns. This is five columns. This is five columns. This is five columns. This is five columns.

CHAPTER E. DEMONSTRATE TABLES

Label	**Number**
ta:text-only	E.1
ta:fruit	E.2

This table contains only text. Let's cite Lamport's book here: Lamport (1994).

Table E.1
This is the caption. Let's cite Lamport's book again here: Lamport (1994).

apple	banana	cherryLamport (1994)
aardvark	boa constrictor	coyote

Table E.2
This is a really long and boring caption. It goes on and on as if it thinks what it says is important. Here is some more of it. The citation for "Lamport::1994" is "Lamport (1994)".

Table E.3
2.3 sidewaystable mode `\begin{table}`...`\end{table}` table

apple	banana	cherry
aardvark	boa constrictor	coyote

Table E.4
2.4 sidewaystable mode `\halign{...}` table

apple	banana	cherry
aardvark	boa constrictor	coyote

apple	banana	cherry
aardvark	boa constrictor	coyote
apple	banana	cherry
aardvark	boa constrictor	coyote
apple	banana	cherry
aardvark	boa constrictor	coyote
apple	banana	cherry
aardvark	boa constrictor	coyote
apple	banana	cherry
aardvark	boa constrictor	coyote
apple	banana	cherry
aardvark	boa constrictor	coyote
apple	banana	cherry
aardvark	boa constrictor	coyote
apple	banana	cherry
aardvark	boa constrictor	coyote

Table E.5
2.5 left hand table

apple	banana	cherry
aardvark	boa constrictor	coyote

Table E.6
2.6 left hand table

Table E.7
2.7 sidewaystable mode `\begin{table}`...`\end{table}` table

apple	banana	cherry
aardvark	boa constrictor	coyote

Table E.8
Presidents

#	Name
1	George Washington
2	John Adams
3	Thomas Jefferson

Table E.9
Presidents with horizontal and vertical lines

#	Name
1	George Washington
2	John Adams
3	Thomas Jefferson

CHAPTER F. DEMONSTRATE TEXT

```
This is a sentence.
This is a sentence.
This is a sentence.
This is a sentence.
This is a sentence.

This is a sentence.
This is a sentence.
This is a sentence.
This is a sentence.
This is a sentence.
```

This is a sentence. This is a sentence. This is a sentence. This is a sentence. This is a sentence.

This is a sentence. This is a sentence. This is a sentence. This is a sentence. This is a sentence.

```
From \verb+http://www.biblegateway.com/passage/?book_id=1&chapter=1&version=50+

\begin{quote}
    1 In the beginning God created the heavens and the earth.
    2 The earth was without form,
    and void;
    and darkness was on the face of the deep.
    And the Spirit of God was hovering over the face of the waters.

    3 Then God said,‘‘Let there be light’’;
    and there was light.
    4 And God saw the light,
    that it was good;
    and God divided the light from the darkness.
    5 God called the light Day,
    and the darkness He called Night.
    So the evening and the morning were the first day.
\end{quote}
```

From
`http://www.biblegateway.com/passage/?book_id=1&chapter=1&version=50`:

> 1 In the beginning God created the heavens and the earth. 2 The earth was without form, and void; and darkness was on the face of the deep. And the Spirit of God was hovering over the face of the waters.
>
> 3 Then God said,“Let there be light”; and there was light. 4 And God saw the light, that it was good; and God divided the light from the darkness. 5 God called the light Day, and the darkness He called Night. So the evening and the morning were the first day.

```
\begin{description}
    \item[apple]
        A red fruit.
    \item[banana]
        A yellow fruit.
        This sentence is to make the entry longer so you can see what happens.
        This sentence is to make the entry longer so you can see what happens.
    \item[cherry]
        A red friut.
\end{description}
```

apple A red fruit.

banana A yellow fruit. This sentence is to make the entry longer so you can see what happens. This sentence is to make the entry longer so you can see what happens.

cherry A red friut.

```
\begin{enumerate}
    \item apple
    \item banana
        This sentence is to make the entry longer so you can see what happens.
        This sentence is to make the entry longer so you can see what happens.
    \item cherry
\end{enumerate}
```

1. apple
2. banana This sentence is to make the entry longer so you can see what happens. This sentence is to make the entry longer so you can see what happens.
3. cherry

```
\begin{itemize}
    \item apple
    \item banana
        This sentence is to make the entry longer so you can see what happens.
        This sentence is to make the entry longer so you can see what happens.
    \item cherry
\end{itemize}
```

- apple
- banana This sentence is to make the entry longer so you can see what happens. This sentence is to make the entry longer so you can see what happens.
- cherry

LIST OF REFERENCES

LIST OF REFERENCES

Goossens, M., Mittelbach, F., & Samarin, A. (1994). *The LaTeX companion.* Reading Massachusetts: Addison-Wesley.

Kopka, H., & Daly, P. W. (1995). *A guide to LaTeX: Document preparation for beginners and advanced users* (Second ed.). Reading Massachusetts: Addison-Wesley.

Kopka, H., & Daly, P. W. (1999). *A guide to LaTeX: Document preparation for beginners and advanced users* (Third ed.). Reading Massachusetts: Addison-Wesley.

Lamport, L. (1994). *LaTeX: A document preparation system* (Second ed.). Reading Massachusetts: Addison-Wesley.

VITA

VITA

The remainder of this page was taken from page 13 of the Grad School's thesis manual.

Ph.D. candidates are required to include a vita in their dissertation; however, this is optional for master's candidates. The vita is normally the last major division of the dissertation (unless followed by a publication) and should be separated from the preceding material by a cover sheet that is neither numbered nor counted. The content of this section will be largely driven by departmental requirements; in some cases, you may be asked to provide a curriculum vitae, detailing your professional and academic resume.