

# Manual for psu-thesis L<sup>A</sup>T<sub>E</sub>X Style File

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## Included Files

manual.tex  
manual.pdf  
psu-thesis.sty  
psu-thesis.bst  
mssample.tex  
mssample.pdf  
phdsample.tex  
phdsample.pdf

## Introduction

The origin of this style file came directly from my horrible experience trying to write a technical Master's thesis using “a popular word processor.” It was at that time that I decided that it would be best to bite the bullet and simply learn T<sub>E</sub>X and not have to deal with that nightmare again for my PhD thesis.

Unfortunately, at the time I was writing my Ph.D. thesis, Penn State did not provide any support for T<sub>E</sub>X users. Although there were several style files floating around different departments, they seemed to me as a novice user to require quite a bit of effort to use them. The style file itself had to be changed, i.e. lines commented out or uncommented, and there was no documentation. My goal was to merge together parts of various style files and make a single package whose features could all be accessed through issuing simple L<sup>A</sup>T<sub>E</sub>X commands in the document rather than editing the style file itself.

I received my PhD in December of 2000 and did the development work on this package then. I wrote most of this documentation in 2002 and then came back to it in 2008 when I realized I could upload it to CTAN and make it available to other people. A fair amount of work went into it and I thought others could benefit. As of 2000, the Penn State Thesis Office had no interest in having anything to do with a L<sup>A</sup>T<sub>E</sub>X style file and only maintained templates for “popular word processors.” I'm sure they still feel the same way.

**Note that I have not reviewed the thesis guidelines since 2000 and they may have changed. When I submitted my thesis in 2000, it passed Thesis Office scrutiny using this package. The committee page was contributed from a 2004 thesis, and incorporated “as-is,” with appropriate logic to include it or not.**

There are few guidelines for the main body of the thesis, so nearly all of the provided commands can be classified as either front matter or back matter. These commands are used to set up the title page, abstract, appendices, and so forth. There are some commands which do not fall into these two categories which are provided at the end. A summary of the commands is provided below.

Note that the `setspace` package is a separate L<sup>A</sup>T<sub>E</sub>X package, not something developed at PSU. It is a required package because the line spacing and some of the commands in the `psu-thesis` style file rely on commands in the `setspace` style file.

To include the style file (and bibliographic style file `psuthesis.bst`) in your thesis document, simply issue the command `\usepackage{psu-thesis}` in the preamble *after* the `documentclass` command and `\usepackage{doublespace}` command since many of the `psu-thesis` commands rely on the `doublespace` package. It is also intended to be used with the `report` document class:

```
\documentclass[dvips,11pt,twoside]{report}
\usepackage{doublespace}
\usepackage{psu-thesis}
\bibliographystyle{psuthesis}
```

The package was set up with both one-sided and two-sided printing in mind, so the optional arguments `oneside` and `twoside` to the `report` document class can be used and the macros provided in this package will adapt accordingly.

## Package Options

The following options are available:

```
master
doctor
signature
draft
```

The first two package options, `master` and `doctor` are available which set defaults for those thesis types:

<code>master</code>	<code>doctor</code>
Set degree to “Master of Science”	Set degree to “Doctor of Philosophy”
Permission to Copy Page	Committee Page
List of Tables	List of Tables
List of Figures	List of Figures

The `signature` option will include the signature page, which has since been supplanted by the committee page. The `\includesignature` command in the preamble produces the same effect.

The `draft` option is useful for version control of drafts of your thesis while it is being written. It produces a box with the date the document was produced at the top of every page,

```
DRAFT: SEPTEMBER 17, 2008 AT 1:59 AM
```

You can also place the `\draft` command in the preamble to activate this feature.

## Front Matter

Most of the commands provided are related to the front matter. Commands can be divided into three groups, commands which set information for the title page, commands to set up the signature page, and commands to include and format the other front matter items.

The front matter definition commands can be issued either in the preamble or within the document itself. The only command that is required to appear within the document is the `\makefrontmatter` command which generates and outputs all of the frontmatter material based on the other commands issued. Of course if the commands to create the front matter parts are not in the preamble, they must appear *before* the `\makefrontmatter` command.

### Title Page Information

A variety of general information is required for the style file to format the title page, signature page, and so forth. These commands to input the information are straightforward. The appropriate information is simply the argument of the command:

<code>\title{}</code>	thesis title (it should be in all caps; this is not automatic)
<code>\author{}</code>	thesis author
<code>\dept{}</code>	academic department in which thesis is earned
<code>\college{}</code>	college the above department belongs to
<code>\submitdate{}</code>	month and year of submission/publication of thesis
<code>\copyrightyear{}</code>	year of publication of thesis (for title and copyright pages)
<code>\degree{}</code>	degree being obtained, e.g. “Doctor of Philosophy”

The thesis type is set to produce “A Thesis in...” by default but can be changed to “A Thesis Proposal in...” with the `\proposal` command or “A Dissertation in” with the `\dissertation` command.

Additionally, the `\includecopyrightline` command will include a copyright line on the title page using the copyright year and author information supplied. Alternatively, the command `\includecopyrightpage` will cause a separate copyright page to be output immediately following the title page. Both the title page line and separate page can be included, but only one is recommended.

### Signature/Committee Page Information

The signature and committee pages can be set up with up to six thesis readers using the `\includesignature` and `\includecommittee` commands, respectively. A suite of commands are included to aid in the formatting of the signature and committee pages. Headings and spacing are set automatically. The author information is taken from the `\author{}` command above. Each reader is added with a consecutive command, i.e.

```

\firstreader{}{}
\secondreader{}{}
\thirdreader{}{}
\fourthreader{}{}
\fifthreader{}{}
\sixthreader{}{}

```

Each reader command requires two arguments. The first is the reader's name, and the second is the title and affiliation of that reader, for example

```
\firstreader{Isaac Newton}{Professor of Mathematics}
```

would produce

---

```
Isaac Newton
Professor of Mathematics
```

for the signature page and similar without the lines for the committee page. The signature page is optional, and can be included with `\includesignature` in the preamble or the `signature` package option. It is not numbered, so it can be bound with the author's personal copy and the page numbers will not differ from the reference copy.

Several macros have been defined to format the reader affiliations. First, macros are defined to identify the professor as assistant, associate, or full professor:

```
\assistprof{}
\assocprof{}
\prof{}
```

Additionally, the macro `head{}` is defined to identify that the reader is the head of the department. The Thesis Office likes to see both `\prof{}` and `\head{}` for department heads.

Macros are provided for additional information as follows:

Macro Command	Text Produced
<code>\adviser</code>	Thesis Adviser
<code>\coadviser</code>	Thesis Co-Adviser
<code>\chair</code>	Chair of Committee
<code>\cochair</code>	Co-Chair of Committee
<code>\adviserchair</code>	Thesis Adviser, Chair of Committee
<code>\coadviserchair</code>	Thesis Co-Adviser, Co-Chair of Committee

These macros are not necessarily of much value since it is nearly as easy to simply type the appropriate information into the document rather than using the macros, but several style files I came across contained such shortcuts, so they were retained in this package.

For example, either

```
\secondreader{Isaac Newton}{\prof{Mathematics}\head{Mathematics}}
\adviserchair}
```

or

```
\secondreader{Isaac Newton}{Professor of Physics \\
Head of Department of Physics \\ Thesis Adviser, Chair of Committee}
```

would produce

---

```
Isaac Newton
Professor of Physics
Head of Department of Physics
Thesis Adviser, Chair of Committee
```

## Permission to Copy Page

The permission to copy page is produced with the `\includepermission` command. The name is taken from the `\author` entry. No other input is required since the required text is given in the thesis guide.

## List of Symbols

Three macros are included for the List of Symbols. The first, `\listofsymbols[width]{}`, causes the List of Symbols to be included in the frontmatter. The List of Symbols itself is the required argument, which can of course be entered directly or in a separate file and accessed with an `\input` or similar command.

The second macro is to aid in generating the symbol list and takes the form

```
\symbolentry{symbol}{definition}
```

The command outputs the symbol and definition in two columns. The definition column is in paragraph form, so manual line breaking is not necessary. The width of the symbol column is set by the optional argument `[width]` in the `\listofsymbols[width]{}` command. The default is 1 inch. The definition column will be the remainder of the page, i.e. `\textwidth-width`. To change the width in the middle of the list of symbols, use the command `\setsymwidth{width}`. It redefines the symbol width and automatically adjusts the description width to the remainder of the page.

By default, the first argument is output in math mode, but plain text symbols can be created with `\mbox{}`. For example, `\symbolentry{g}{Acceleration due to Gravity}` produces

$g$                       Acceleration due to gravity

## Unformatted Front Matter Pages

The remaining frontmatter pages do not include any formatting, hence commands are provided for the sole purpose of determining whether to include each page or not, and placing them in the correct order. They can be defined in any order but will appear in a specific order when the document is processed. These front matter items can be included are in two groups, commands which merely include the associated item, and commands which include the item and define its contents. The items will be output in the following order if the corresponding command is present:

Macro Command	Front Matter Item
<code>\includecopyrightpage</code>	Copyright Page
<code>\includepermission</code>	Permission to Copy Page (For MS Theses)
<code>\includesignature</code>	Signature Page (For PhD Theses)
<code>\includecommittee</code>	Committee Page (For PhD Theses)
<code>\dedicationtext{content}</code>	Dedication
<code>\abstracttext{content}</code>	Abstract
	(Table of Contents)
<code>\includelistoffigures</code>	List of Figures
<code>\includelistoftables</code>	List of Tables
<code>\listofsymbols[wid]{content}</code>	List of Symbols
<code>\dedicationtext{content}</code>	Dedication
<code>\prefacetext{content}</code>	Preface
<code>\acknowltext{content}</code>	Acknowledgements
<code>\epigraphtext{content}</code>	Epigraph
<code>\frontispiece{content}</code>	Frontispiece

For my thesis the content for each of these was an `\include` command to include a separate file, but you can put your actual content in the braces if you like.

## Back Matter

There is considerably less back matter than front matter, but unfortunately, the thesis office wants some of the items to appear differently than the  $\LaTeX$  defaults. The following macros are provided to format the back matter items to the thesis office standards.

## Appendices

Two commands are provided for inclusion of appendices, `\singleappendix` and `\appendices`. The reason for these is that the thesis office wants a single appendix to be called “Appendix” and  $\LaTeX$  treats it as a chapter and by default if the `\appendix` command was issued, would call it “Appendix A” and would put “A” in the table of contents. The provided macros `\singleappendix` and `\appendices` format the appendix/appendices to be called “Appendix” in both the text and the table of contents in the case of a single appendix and have the letters prefaced by the word “Appendix” in the table of contents in the case of multiple appendices.

The appropriate command should be issued, followed by a `\chapter` command to provide a title for the appendix,

```
\singleappendix \chapter{Appendix name}
<text of appendix>
```

or

```
\appendices \chapter{First appendix name}
<text of appendix>
```

```
\chapter{Second appendix name}
<text of appendix>
```

etc.

## Bibliography Entry

Unfortunately, the bibliography is also not included in the table of contents by default. A command is provided to include the bibliography in the table of contents and single space the list of references. The command is `\includebibliography{}`. Unlike the other “include” commands, the `\includebibliography{}` command takes an argument which is the bibliography itself. This is for single space formatting. Simply include the bibliographic entries as its argument to print out the bibliography. Using  $\LaTeX$  features is fine, so the command would likely be

```
\includebibliography{\bibliography{refs}}
```

if  $\text{BIB}\TeX$  is used. The `psuthesis.bst` style file is included for producing a bibliography with  $\text{BIB}\TeX$ .

## Vita

A command `\vita{}` is provided to include a *vita/curriculum vitae* at the end of the thesis. It is not required by the thesis office, but many like to include it. The argument is the vita itself, most likely an `\input{}` or `\include` command linking to a file containing the vita. The macro provides a clean page and the author name from the front matter.

## UMI Abstract

The UMI Abstract is required by the thesis office for PhD theses. UMI keeps your thesis on file and if you read the fine print, keeps your royalties unless a lot of people request your thesis in a given year. The UMI abstract is not bound with the thesis, but it can be placed at the end so a whole separate document is not required. The command `\UMIabstract{}` formats the specific header required by UMI using information from the front matter and includes the abstract supplied as the argument. The UMI abstract has a word limit (consult the thesis guide for details), but if the thesis abstract falls within the word limit it can be the same for both. The abstract is printed without a page number since it is not bound with the thesis.

## Numbering by Chapter

The `\numberbychapter` command changes the numbering scheme for figures, tables, and equations to follow the chapters so that they are numbered 1.1, 1.2, 1.3, ... in the first chapter, and 2.1, 2.2, 2.3, ... in the second chapter and so forth. This command should always be included to follow thesis office guidelines. Include it in the preamble to activate.

## Other notes

There may be other commands hiding in the style file that are not documented here. These instructions and the sample files were thrown together to try to make the package usable without

people tracking down my email address and asking me about them. The `mssample` and `phdsample` files are provided to show how many of the features work in for MS and PhD theses. Feel free to look through the `.sty` file itself and discover commands I forgot to document in these instructions. If you know enough about  $\TeX$  and  $\LaTeX$  to be using them to write a thesis, you can figure it out.

Finally, I put together much of the style file by piecing together parts of other style files that I picked up from various people. Some of the macros identify who wrote them, and I preserved the original author information if present, even if I modified the macros. So if there is some piece of code in the style file that you wrote but isn't credited to you, thank you for your contribution and it wasn't me who took your name out.

I hope you find the package helpful, if so, please tell the Thesis Office they should support  $\LaTeX$  and/or tell your friends about this macro package.