The NDdiss $2_{\mathcal{E}}$ class*

2017-05-09

Abstract

The $\mathtt{NDdiss2}_{\mathcal{E}}$ class can be used to type set dissertations submitted to the University of Notre Dame's Graduate School. This class conforms with the Graduate School guidelines as of Spring 2013 for the layout of the Ph.D. dissertations and Master's theses.

Contents

1	Introduction					
	1.1	Disclaimer	2			
	1.2	Dependencies and Limitations	2			
	1.3	History	3			
2	Qui	ck Start	3			
3	Usa	${f ge}$	4			
	3.1	Options	5			
4	Arra	angement of Contents	6			
	4.1	Title Page	7			
	4.2	Copyright Page	8			
	4.3	Abstract Page(s)	8			
	4.4	Dedication	8			
	4.5	Table of Contents; Lists of Figures and Tables	8			
	4.6	List of Symbols	8			
	4.7	Preface	9			
	4.8	Acknowledgments	9			
	4.9	Text	9			
	4.10	Appendix	9			
		Backmatter	9			
		Bibliography	9			
		·	0			

^{*}Version 3.2017.2, dated 2017-05-09.

5	Note For Authors	11
	5.1 Tips and Suggestions	11
	5.2 You Found Errors?	13
6	Other Packages Used 6.1 Generating PDF document	13
7	The Implementation	15

1 Introduction

The \LaTeX 2_{ε} document class $\texttt{NDdiss}2_{\varepsilon}$ is suitable for producing dissertations and theses conforming to the Spring 2013 guidelines of the Graduate School at the University of Notre Dame. The package is extends the standard \LaTeX book class.

The latest version of this class and related documentation can be found in a few places:

- On CTAN: https://ctan.org/pkg/nddiss
- On GitHub: https://github.com/ndlib/nddiss
- On the University of Notre Dame's Graduate School website: http://graduateschool.nd.edu/

1.1 Disclaimer

While this class does as much formatting as it can, there are a few formatting items that you, the user, must do manually (see Section 5). Please keep in mind that only *you* are responsible for the correct formatting of your dissertation/thesis. Should you have questions, please consult the official formatting guide or email dteditor@nd.edu.

1.2 Dependencies and Limitations

This classfile depends on many other packages to be installed. All of these required packages are available through MiKTeX and TeXLive, and chances are good they are already installed by your TeX distribution. Refer to section 6 for a list of the essential packages.

The document class has only been tested with a small subset of available packages. There are numerous packages you may want to use for your work, but they may have to be modified accordingly. Things lacking include support for the subfigure and subcaption package and proper formatting of the captions in such an environment. Formatting of the captions could be much easier with the caption¹ in general, and is a thing-to-do for future versions. Permitting use of the subfigure and subcaption packages would also be a good thing to do if an update is

¹caption package by Axel Sommerfeldt v3.0b[2004/05/16] and higher

ever made for reaosns other than resolving conflicts caused by changing Graduate School regulations. If you want to use a subfigure environment and don't need the caption capabilities of the subcaption package, adding the following code to your preamble may allow you to do this and still have your captions formatted according to the Graduate School's rules.

```
\usepackage{subcaption}
\makeatletter
\renewcommand\LT@makecaption[3]{%
  \LT@mcol\LT@cols c{\hbox to\z@{\hss\parbox[t]\LTcapwidth{%
  \vskip\abovetableskip%
  \centering\normalspacing
  #1{#2 }\\[\single@skip]
  {#3}\par
  \endgraf\vskip\belowtableskip}%
  \hss}}
\makeatother
```

1.3 History

The NDdiss2 ε package is an extensive rewrite by Sameer Vijay of an earlier NDthesis class for formatting dissertations. Megan Patnott updated NDdiss2 ε to the 2013 Graduate School Formatting guidelines. The NDThesis class was by D. A. Peterson.

2 Quick Start

This section provides a template you can use to get started. The distribution comes with a more detailed file, template.tex, that is similar, but more detailed.

```
\documentclass[numrefs,final]{nddiss2e}
\begin{document}

\frontmatter

\title{Title in Title Caps}
\author{Your Name}
\work{Dissertation}
\degaward{Doctor of Philosophy}
\advisor{}
\department{}
\maketitle
\makepublicdomain % There is also a copyright option
\begin{abstract}
Abstract here
```

```
\end{abstract}
% dedication is optional
\begin{dedication}
For Someone
\end{dedication}
\tableofcontents
\listoffigures
\listoftables
% list of symbols is optional
\begin{symbols}
\sym{a}{definition of a}
\end{symbol}
% preface is optional
\begin{preface}
Preface here
\end{preface}
\begin{acknowledge}
Thanks to everyone
\end{acknowledge}
\mainmatter
\chapter{A New Dawn} % Chapter 1
All the text ...
\appendix
\chapter{Additional Data} % Appendix A
\backmatter
\bibliographystyle{nddiss2e}
\bibliography{bibdatabase}
\end{document}
```

3 Usage

Invoke the NDdiss2 ε document class by adding \documentclass[$\langle options \rangle$] {nddiss2 ε } at the beginning of your LATEX source file. For most people the options \documentclass[draft]{nddiss2 ε } is good enough for the initial revisions. If you want your figures to display, use \documentclass[review]{nddiss2 ε }.

Use the option \documentclass[final] {nddiss2e} for your formatting check submission, and \documentclass[final,noinfo] {nddiss2e} for the final sub-

mitted version.

If you have two advisors, add the option twoadvisors here, and then use \secondadvisor{} later on the title page to give the name of the second advisor.

By default, all documents produced using this class are formatted as one-sided, doublespaced, letter-sized pages, per the Graduate School requirements. In theory, the class file's specifications should override your system's defaults. If, however, you are getting A4 paper, try adding \pdfpagewidth{8.5in} and \pdfpageheight{11in} immediately after the \documentclass in your file.

3.1 Options

draft review final Exactly *one* of these options must be used. The draft and review options enable faster processing of the document and also include annotations to help write and edit it.

The draft option enables a fast processing and preliminary document showing the labels for citations, tables, figures etc. and a black solid rule highlighting the horizontal overflows. Additionally, figures are replaced with placement boxes showing where the included figure would be placed. Such a document would be the one you would prepare for revising your text during writing stages.

The review option makes it possible to prepare a document that is one step closer to the final version. Almost all the formatting of the final version is present, but the labels and keys as in the draft option are also displayed. A document prepared with the review option would be the one to personally check for proper formatting and possibly giving to your advisor if she wished to suggest corrections.

The final option produces the document to be submitted to the Graduate School for formatting checks and as the final version.

 ${\tt two advisors}$

The twoadvisors option will produce a title page with space for two advisors. Use the \secondadvisor macro command (discussed in Section 4.1) on the title page to give the name of the second advisor.

noinfo

The noinfo option disables the information page produced when the review or final style options are used. It is recommended that you only use this option when making the final submission to the Graduate School.

nonatbib

With this option, nddiss2e will not load the natbib package and allow to use a different bibliography package, e.g., biblatex instead.

numrefs textrefs These options determine how citations are displayed in the text. The default style is numrefs. The numrefs option produces a numbered citation sytle by using natbib and the "nddiss2e" or "nddiss2enoarticletitles" citation style file². The textrefs option changes the citation style to be similar to "author-date" style with the same files.

sort compress sort&compress

At most one of these options should be selected. The **sort** option will cause both numerical and "author-date" style references to be sorted in the order that they appear in the bibliography when multiple references are cited. The **compress**

²nddiss2e.bst is a slight modificiation of abbrvnat.bst in the natbib package; nddiss2enoarticletitles.bst is essentially the same as nddiss2e, but does not display the titles of journal articles, as this is the standard in some fields; nddiss2enosort.bst is essentially the same as nddiss2e, but sorts by order of appearance in text instead of author name.

option compresses numerical citations, e.g. it turns [1,2,3] into [1-3], and does nothing to "author-date" style references. The sort&compress option first sorts and then compresses numerical references, and only sorts "author-date" style references

Since the same set of packages and style files result in differing citation formats, refer to the documentation for natnotes.dvi in your TEXMF tree, to be aware of the various ways in which you can make a citation in your text.

10pt 11pt These options adjust the font size of the body text. The choice is only applicable when the draft option is used, and defaults to 10pt. When review or final is used, this option is ignored and 12pt is used.

12pt twoside

The twoside option causes the class file to prepare a document meant to be printed double-sided. This option is strictly for if you want to prepare a two-sided document for your own use. The only difference from the one-sided document is in the page layout. Do NOT use this option when preparing to submit it to the Graduate School.

showframe

The **showframe** option shows visible frames for the text area and page. This can be useful to ensure that all content is within the content area and not running over into the margins.

linenumbers

The linenumbers option enables the display of line numbers throughout the document.

nocenter

The nocenter option allows non-centered chapter titles. Do NOT turn in your document this way to the Graduate School!

openbib

The openbib option formats your bibliography in the following manner:

Author

Article/book title

Other information

Website, if applicable

Usually you would not need to use this option since the default layout of the bibliography is acceptable.

4 Arrangement of Contents

A dissertation or a thesis document contains the following parts, in the order listed. Only those marked as optional may be omitted.

- 1. Title Page
- 2. Copyright page
- 3. Abstract (optional for Master's thesis)
- 4. Dedication (optional)
- 5. Table of Contents
- 6. List of Figures
- 7. List of Tables

- 8. List of Symbols (optional)
- 9. Preface (optional)
- 10. Acknowledgments (optional)
- 11. Text
- 12. Appendix (or Appendices) (optional)
- 13. Bibliography (or References, or Works cited)

The macros and environments described below ease the formatting of these parts.

4.1 Title Page

\maketitle The title page is generated by \maketitle with no arguments. This macro has been modified for providing a title page in the correct format.

You can set information to display on the title page by using the following commands before invoking \maketitle.

- The title of the document, using the \title macro. You may use linebreaks within the title, protected via \protect\\ and the title may be up to four lines long.
- Give your name in full and exactly as registered with the Graduate School, using the \author macro, e.g. \author{Gary Graham Gordon-Graeme}).
 - Whether the document is a *Thesis* or a *Dissertation* as the argument of the \work macro, e.g. \work{Dissertation}).
- Specify the degree you're aiming for with the \degaward macro. Should be one of \degaward{Doctor of Philosophy} (without the "in subject" or \degaward{Master of Science\\in\\Engineering}.
- Give the name of your advisor with the \advisor macro.
- Give the name of your second advisor, if any, with the \secondadvisor macro. You also need to pass in the twoadvisors option in the \documentclass declaration.
 - - The month and year of the defense of the thesis with the \degdate e.g. \degdate{June 2004}). If you forget to declare this, the current month/year will be used.

4.2 Copyright Page

\makecopyright
\copyrightholder{}
\copyrightyear{}

The \makecopyright macro should be invoked after \maketitle to produce a copyright page. Prior to calling \makecopyright, you may specify a different name for the copyright holder (the default is the name given through the \author macro) and for the copyright year (the default being the current year). Do this with the \copyrightholder{ $\langle name \rangle$ } and \copyrightyear{ $\langle year \rangle$ } macros.

\makepublicdomain

Alternatively, you can use \makepublicdomain to produce a page with the message "This document is in the public domain." Note that the absence of the copyright page does *not* place your dissertaion in the public domain, you must declare it as such explicitly.

4.3 Abstract Page(s)

abstract

The abstract text should be placed between \begin{abstract} and \end{abstract}. If the abstract is longer than one page, the environment will place the author's name in the top-right header.

\abstractname{}

You may use $\abstractname{\langle text \rangle}$ to change the abstract caption to text. Default name: Abstract. You probably don't need to change it.

4.4 Dedication

dedication

The dedication is optional. If you want one, use the dedication environment. The format of dedication is essentially free. This environment will center the text of your dedication vertically on the page.

\dedicationame{}

You may use $\dedicationname{\langle text \rangle}$ to change the title for the dedication page. Default name: $\mbox{\{}\}$ i.e. an empty title. You probably don't need to change it.

4.5 Table of Contents; Lists of Figures and Tables

\tableofcontents
 \listoffigures
 \listoftables
 \contentsname{}
\listfigurename{}
\listtablename{}

Use the macros \tableofcontents,\listoffigures and \listoftables, in this order, to produce the required table of contents and lists of figures and tables.

You may use \contentsname, \listfigurename and \listtablename to change the titles for these sections. By default they are CONTENTS, FIGURES, and TABLES. You probably don't need to change them.

4.6 List of Symbols

symbols

The list of symbols is optional. Use the symbols environment to format a list of symbols/abbreviations used in your work. The environment takes an optional argument specifying the desired format, e.g. \begin{symbols}[c1] for first column centered and the next column aligned left. By default, the first column will be right aligned and the second column will be left aligned. You may use any of the standard tabular column alignment options.

 $\sum {sym{}}{}$

The command $\sum {\langle symbol \rangle} {\langle definition \rangle}$ may make the task of entering the symbols and their meanings in the symbols environment easier. \sym takes

two arguments: the first, a math "object" and the second, the plain text describing the symbol. Since the first argument is in math mode, any plain text needs to be wrapped with \mathrm{..} Likewise, any math symbol in the second argument needs to placed in \\$..\\$. Example: \sym{\beta_\mathrm{norm}}{Definition for \$\beta\$}

\symbolsname{}

You may use \symbolsname{} to change the title of the symbols section. Default name: SYMBOLS.

4.7 Preface

preface
\prefacename{}

The preface environment is provided for formatting the preface to your work.

You may use \prefacename to change the name of this section. Default name: PREFACE.

4.8 Acknowledgments

 ${\tt acknowledgments} \\ {\tt \acknowledgename} \{\}$

The environment acknowledgments is used to format the acknowledgment *chapter*. You may use \acknowledgename to change the name of this section. Default name: Acknowledgments.

4.9 Text

\mainmatter

Use the macro \mainmatter to mark the beginning of your text. You can then use \part, \chapter, \section, \subsection, and \subsubsection commands, as you would with the book class. Text is formatted in \normalspacing i.e. double-spacing. The pages are numbered in plain pagestyle such that the page numbers are centered in the bottom. The chapter titles can be multi-line, and if so are formatted doubly spaced.

\unnumchapter{}

Use the macro \unnumchapter to create to create unnumbered chapters that appear in the Table of Contents.

4.10 Appendix

\appendix

Use the command \appendix after the last normal chapter to signal that all following chapters are to be appendices. This use is the same as in the book class. To begin an appendix, use the \chapter{ $\langle title \rangle}$ macro.

4.11 Backmatter

\backmatter

The \backmatter macro separates the bibliography, index and glossary from the main matter and any appendices.

4.12 Bibliography

\bibliography

If you are using BibTeX (and why would you not want to use BibTeX?), use the $\bibliography{\langle bibfile\rangle}$ macro to generate the bibliography. You should refer to BibTeX manual for details about making a .bib file and format for the entries.

For citing references in the text, the package natbib is included with either the settings numbers, sort&compress (numrefs option) or authoryear, sort (textrefs option). The package natbib is a package that has numerous macros for *citing* in different ways.

Warning: The packages cite and citation are NOT compatible with the natbib package, and will cause errors if used.

thebibliography

If you are not using BibTEX make your own bibliography by using the thebibliography environment. In this case, you would have to write the reference entries in the right format in your .tex source file itself. If you are using the textrefs option, you'll need to consult the natbib manual to ensure that you enter your entries in the format required by the package.

\bibname{}

You may use $\langle newbibname \rangle$ to change the name of this section. Default name: Bibliography.

4.13 Chapter-wise Bibliography

By default the bibliography appears at the end of your work and contains all the references from the entire entity. If you need to have a separate bibliography for each chapter, you can do it in the following way. First, load the package chapterbib without any options in the preamble of your main source file and redefine the commands \bibname and \bibsection as shown below.

```
%% Main source file %%
\documentclass[...]{nddiss2e}
\usepackage{chapterbib}
\renewcommand{\bibname}{Cited works}
\renewcommand{\bibsection}{\section{\bibname}}
...
\begin{document}
\include{chptr1}
...
\include{appndx}
\end{document}
```

To process the bibliography for each chapter individually, the chapters or sections must be separated into different files and *include* them in the main file, as shown above. Each such \included file must contain its own \bibliographystyle{nddiss2e} and \bibliography{...} command at an appropriate position. There should not be any bibliographic commands in the main source file.

After compiling the main tex file once (with latex or pdflatex), the .aux files needed by bibtex will have been created and you can then run bibtex on each of the separate source files to obtain a .bbl for each file. The remaining steps are the same as for a normal .tex file.

You can find more details of this in the natbib manual.

5 Note For Authors

The dissertation author must make sure that the following conditions are met in order to generate a dissertation acceptable by the Graduate School:

- The List of Figures must be *before* the List of Tables, i.e. the macro command \listoffigures comes before \listoftables in the frontmatter.
- Table captions must be *above* the corresponding table, In case of the table environment, this can be achieved by putting \caption before you include the table (e.g. in a tabular environment).
- Figure captions should be *below* the corresponding figure. In the figure environment, the \caption goes after the \includegraphics macro command.
- The bibliography is the last section/chapter of the thesis—unless you are using the *chapter-wise* bibliography.

5.1 Tips and Suggestions

- It is *strongly* recommended that you compile your document with pdfIATEX. Compiling to dvi or postscript first may result in "fuzzy" fonts when viewing the document on your screen. Additionally, the benefits of hyperref and pdflscape are only available if you compile using pdfIATEX.
- Use the \toprule, \midrule and \bottomrule macro commands (from the booktabs package) in tables for generating the appropriate horizontal rules. Refrain from using vertical rules to separate columns in tables as much as possible.
- Use the threeparttable environment for tables with tablenotes.
- Use the longtable environment for handling very long tabular materials. Example:

```
\begin{longtable}{lc}
\caption[]{LONG TABLE CAPTION \label{tab:longtable} }
\toprule
Heading 1 & Heading 2 \\
\midrule
\endfirsthead
\caption[]{ } \\ % doesn't matter what text is in the continued caption.
\midrule
Heading 1 & Heading 2 \\
\midrule
\endhead
\endfoot
\bottomrule
\endlastfoot
% Now the tabular material %
```

```
Long & Table etc. \\
\end{longtable}
```

• If a figure or table is very wide and will not fit on a page, use the landscape environment (from the included lscape package) to format them in landscape mode. They will automatically appear on a separate page. If you use pdflATeX to compile your document, then the included pdflscape package will flip this page on the screen for easier reading.

If the positioning of the landscape environment is inconvenient and leads to half-empty pages, the afterpage command, made available by the package with the same name, allows the text to flow around the landscape environment better:

```
\afterpage{%
  \begin{landscape}
  \centering
  \input{my_landscape_table}
  \end{landscape}
}
```

- The sidewaystable environment (from the included rotating package) is incompatible with the current class and should be avoided.
- Usually the width of the figure and table captions is 90% of the textwidth (i.e. 0.9\textwidth). If needed, the width can be changed on a case-by-case basis by doing one of the following:
 - Use a minipage environment of appropriate width and enclose your tabular or figure float inside it, or
 - set the \capwidth inside the table or the figure environment, and \LTcapwidth outside the longtable environment, e.g.,

• Use the tabularx environment for the actual formatting of the tables (within the table environment). It differs slightly from tabular environment and you should refer to their documentation in the TEXMF tree for more information.

- If you've used a longtable environment in your document, it might be necessary to compile the document multiple times so as to get proper alignment of columns. This is documented in the longtable manual.
- If you wish to use \footnotes in the longtable environment, please read its documentation. There are some handicaps present.
- To cite a website in your bibliography³, use the following format in your .bib file:

When processed with the nddiss2e.bst citation style file this gives: 111. N. Fairley. CasaXPS VAMAS processing software. Website. http://www.casaxps.com.

5.2 You Found Errors?

Errors in a LATEX document are to be expected. If you have a problem that is that seems to be more than a typo or unbalanced brace, it is possible that there is a conflict between the packages you have included and those that $NDdiss2_{\varepsilon}$ uses. If you find yourself in that situtation, there is a mailing list for handling support issues with $NDdiss2_{\varepsilon}$. Look through the archive, and if there are no answers, please send an email to ND-LATEX-USERS@listserv.nd.edu (registration required). The more effort you spend in isolating the problem or in troubleshooting will make it more likely that others can reproduce the problem and help you solve it. Also if you have a problem that you then solve, please also email the list. Your doing so will help the next person to have that problem, and will also make the maintainers aware of it, so future versions of the class file can be better.

6 Other Packages Used

A number of packages are required by default and must be present in your T_EX search path (if you use a package manager such as MiKTeX or TeXLive, it will take care of this for you). As far as possible, these have been tested for proper formatting style with the $NDdiss2_{\varepsilon}$ class file. The list includes ifthen, exscale, ifpdf, ifluatex, ifxetex, xspace, longtable, indentfirst, tabularx, showkeys, enumerate,

³More info at http://www.tex.ac.uk/cgi-bin/texfaq2html?label=citeURL

latexsym. epsfig, color, graphicx, setspace⁴, amsmath, float, Iscape, rotating, booktabs, and natbib⁵. Sameer urges you to read the documentation of these packages available in the TEXMF tree, if you think you might use their features or want to tweak some advanced options. Of these packages, ifpdf, longtable, natbib, booktabs, rotating, and setspace are not part of the IATEX required distribution, so you may need to download them. They are all available through both MiKTeX and TeXLive; note that ifpdf is part of the oberdiek bundle, which is what you need to download to get that package if it is not already installed on your system.

Other packages may or may not be appropriate for use with the $NDdiss2_{\varepsilon}$ class when producing copies to be submitted to the Graduate School. Please be careful when using packages that change the default fonts, or the page layout.

In general, the official guidelines of the Graduate School are followed to the maximum extent possible. This includes proper formatting of the title page and the abstract page (from the ndthesis package), numbering of the pages in the frontmatter, generation of properly formatted table of contents, list of figures etc., as well as bibliography at the end. Per the guide, the number of different fonts and font sizes used is kept to a minimum. The contents, all lists and the bibliography are single-spaced but the inter-line spacing for the rest of the document is double.

6.1 Generating PDF document

The $\mathtt{NDdiss2}_{\mathcal{E}}$ class also allows production of pdf documents with $\mathtt{pdfIATEX}$. As of Spring 2013, this is the preferred method of compilation. In this case, the hyperref and $\mathtt{pdflscape}$ packages are also required. The hyperref package ensures that the generated pdf document contains internal as well as external links for citations and bookmarks. A document produced by this method also contains embedded fonts (press quality pdf) and is suitable for electronic submission to the library and for microfilm archiving. Although the most appropriate options for hyperref are passed on, for advanced features refer to its documentation. The pdflscape package flips pages with landscape orientation in the pdf file for easier reading, but the location of the page numbers does not change.

Figures must be in pdf, jpeg, png, or gif format, and not in encapsualted postscript (eps). An easy way to convert *eps* files to *pdf* files is to use the utility <code>epstopdf</code> or <code>eps2pdf</code>, which should be available on your unix-like distribution already (should you have one). It is also possible to convert your eps files to pdfs using an online conversion tool. Searching for "eps to pdf" brought up several free options in Fall 2012.

 $^{^{4}}$ v6.7[2000/12/01] or above

 $^{^{5}}v8.31[2009/07/16]$ or above

The Implementation 7

Following is our attempt at documenting the source of the NDdiss 2_{ε} class file for the T_EX hackers.

At the start, we define the base version of LATEX 2ε needed and the label information for the NDdiss 2ε class.

```
1 \NeedsTeXFormat{LaTeX2e} [1999/12/01]
2 \ProvidesClass{nddiss2e}
      [2016/10/16 v3.2016%
      Notre Dame Dissertation document class]
5 %
```

\dissfileversion \dissfiledate

The \dissfileversion and \dissfiledate macros contain the version and the date of the release.

```
6 \providecommand{\dissfileversion}{3.2017.2}
7 \providecommand{\dissfiledate}{2017/05/09}
```

New boolean variables for the options used in $NDdiss2_{\mathcal{E}}$ class are set here with default values.

```
9 \newif\ifdiss@draft
                                    \diss@drafttrue
10 \newif\ifdiss@review
                                    \diss@reviewfalse
11 \newif\ifdiss@final
                                    \diss@finalfalse
12 \newif\ifinfo@page
                                    \info@pagetrue
13 \newif\ifadvisors@two
                                    \advisors@twofalse
                                    \diss@dedicationfalse
14 \newif\ifdiss@dedication
15 \newif\ifnum@refs
                                    \num@refstrue
16 \newif\ifnatbib@refs
                                    \natbib@refstrue
17 \newif\ifcentered@chaptitle
                                    \verb|\centered@chaptitletrue| \\
18 \newif\ifline@numbers
                                    \line@numbersfalse
19 \newif\if@ltfirstcaption
```

review final

draft Exactly one of these options must be present in order to get a proper document. These options set appropriate boolean variables (flags) and pass some common options to the parent book class.

```
21 \DeclareOption{draft}{
22
      \setlength\overfullrule{5pt}
      \typeout{DRAFT MODE}\typeout{}\info@pagefalse%
23
      \diss@drafttrue\diss@reviewfalse\diss@finalfalse
24
      \PassOptionsToClass{letterpaper,oneside,draft}{book} }
25
26 %
27 \DeclareOption{review}{
28
      \typeout{REVIEW MODE}\typeout{}\info@pagetrue%
      \diss@draftfalse\diss@reviewtrue\diss@finalfalse
29
      \PassOptionsToClass{12pt,letterpaper,oneside,final}{book} }
30
31 %
```

```
32 \DeclareOption{final}{
                  \setlength\overfullrule{0pt}
           33
                  \typeout{FINAL MODE}\typeout{}\info@pagetrue%
           34
                  \diss@draftfalse\diss@reviewfalse\diss@finaltrue
           35
                  \PassOptionsToClass{12pt,letterpaper,oneside,final}{book} }
           36
           37 %
          The options numrefs or textrefs select the appropriate citation style i.e. "numbered"
 numrefs
textrefs
          or "textual", respectively. By choosing textrefs, one can get "author-date" style of
           citation in the text. The default is numrefs.
           38 \DeclareOption{numrefs}{
               \typeout{NUMBERED REFERENCES}\num@refstrue}
           40 \DeclareOption{textrefs}{
               \typeout{TEXTUAL REFERENCES}\num@refsfalse}
           42 \DeclareOption{nonatbib}{
               \typeout{NO NATBIB}\natbib@refsfalse}
           The option nocenter allows non-centered chapter titles.
           44 \DeclareOption{nocenter}{\centered@chaptitlefalse}
           45 %
           The openbib option is useful in creating indented bibliography. Usually you would
           not need to use this option since the default layout of the bibliography is very much
           acceptable.
           46 \DeclareOption{openbib}{%
                \PassOptionsToPackage{openbib}{natbib}
           47
           48 }
           49 %
           The sort option is passed to natbib, and causes multiple citations to be listed in the
           sequence they appear in the bibliography.
           50 \DeclareOption{sort}{%
                  \PassOptionsToPackage{sort}{natbib}
           51
           52 }
           53 %
           The compress option is passed to natbib, and causes numerical citations to be compressed
           so that, e.g. 1,2,3 becomes 1-3. Does not also sort.
           54 \DeclareOption{compress}{%
           55
                  \PassOptionsToPackage{compress}{natbib}
           56 }
           57 %
           The sort&compress option sorts numerical citations, and then compresses them.
           58 \DeclareOption{sort&compress}{%
                  \PassOptionsToPackage{sort&compress}{natbib}
           59
           60 }
           61 %
           The other options are declared in the following lines.
```

twoadvisors The twoadvisors option sets the flag for modifying the layout of the title page.

```
62 \DeclareOption{twoadvisors}{\typeout{TWO ADVISORS}\typeout{}%
      63
             \advisors@twotrue}
      64 %
10pt The options 10pt, 11pt or 12pt are passed on to the book class if appropriate, depending
      on whether the \diss@draft flag is set true.
12pt
      65 \DeclareOption{10pt}{%
      66 \ifdiss@draft%
           \PassOptionsToClass{10pt}{book}%
      67
      68 \else%
           \OptionNotUsed%
      69
           \ClassWarningNoLine{nddiss2e}%
      70
             {Font size 10pt not allowed; using 12pt}%
      71
      72 \fi%
      73 }
      74 \DeclareOption{11pt}{%
      75 \ifdiss@draft%
          \PassOptionsToClass{11pt}{book}%
      76
      77
           \OptionNotUsed%
      78
           \ClassWarningNoLine{nddiss2e}%
      79
             {Font size 11pt not allowed; using 12pt}%
      80
      81 \fi
      82 }
      83 \DeclareOption{12pt}{%
            \PassOptionsToClass{12pt}{book}%
      84
      85 }
      86 %
      87 \DeclareOption{noinfo}{\info@pagefalse}
      The twoside option is for when you want to prepare a two-sided document for your own
      use. The only difference from the one-sided document is in the page layout. This option
      is passed on to the parent book class.
      89 \DeclareOption{twoside}{\typeout{TWO SIDED DOCUMENT}%
           \PassOptionsToClass{twoside}{book} }%
      90
      91 %
      The showframe option uses the geometry package to draw visible frames for the text area
      and page. This is useful for checking that none of document content runs outside the
      content area and into the margins.
      92 \DeclareOption{showframe}{%
      93
           \ifdiss@review%
             \PassOptionsToPackage{showframe}{geometry}%
      94
           \else%
      95
             \OptionNotUsed
      96
             \ClassWarningNoLine{nddiss2e}%
      97
               {Frame only shown in review mode; not showing frame}
      98
```

99

100 }

\fi

The linenumbers option enables line numbering throughout the document.

```
101 \DeclareOption{linenumbers}{%
102 \ifdiss@final%
103 \OptionNotUsed%
104 \ClassWarningNoLine{nddiss2e}%
105 {Line numbers are disabled in final mode.}%
106 \else%
107 \typeout{LINE NUMBERS}\line@numberstrue%
108 \fi
109 }
```

All options other than those defined above are ignored and a warning is printed on the screen during compile-time. After processing all the options, the book class is loaded with the specified options.

```
110 \DeclareOption*{\ClassWarning{nddiss2e}%
111     {UnknownOption '\CurrentOption'} }%
112 \ProcessOptions\relax
113 \LoadClass{book}
114 %
```

At this stage, the packages ifthen, exscale, etoolbox ifpdf, ifluatex, ifxetex, longtable, xspace, indentfirst, tabularx, enumerate and latexsym are loaded. It is important to load these in a specific order so as not to cause conflicts in definitions of certain macros.

```
115 \RequirePackage{ifthen, exscale, etoolbox, xpatch}
116 \RequirePackage{ifpdf,ifluatex,ifxetex}
117 \RequirePackage[
     plainpages=false,
118
119
     pdfpagelabels,
     bookmarks=true,%
120
121
     bookmarksnumbered=true,%
     linktocpage=true,%
122
     breaklinks=true,%
123
     bookmarkstype=toc,%
124
    colorlinks=false,%
125
126 pdfpagemode=UseOutlines]{hyperref}
127 \RequirePackage[pass]{geometry}
128 \RequirePackage{longtable}
129 \RequirePackage[flushleft]{threeparttable}
130 \RequirePackage[flushleft]{threeparttablex}
131 \RequirePackage{xspace}
132 \RequirePackage{indentfirst}
133 \RequirePackage{tabularx}
134 \RequirePackage{enumitem}
135 \RequirePackage{latexsym}
136 \RequirePackage{textcase}
137 %
 If the \diss@final is set false (when using draft or review option) then the showkeys
 package is also loaded.
138 % \ifdiss@final\relax\else\RequirePackage{showkeys}\fi
139 %
```

Depending in whether you are using pdfL $^{A}T_{E}X$ or plain L $^{A}T_{E}X$, epsfig, color and graphicx are loaded with respective options.

```
140 \ifboolexpr{bool{luatex}}{%
     \ifcsdef{pdfadjustspacing}{}{%
141
142
       \let\pdfadjustspacing \adjustspacing
143
144 }{}
145 \ifboolexpr{bool{pdf} or bool{xetex} or bool{luatex}}{%
     \RequirePackage{epsfig}
146
     \RequirePackage{color}
147
148
     \RequirePackage{graphicx}
     \AtBeginDocument{
149
     \pdfadjustspacing=1
150
151
     }
152 }{%
     \RequirePackage[dvips]{epsfig}
153
     \RequirePackage[dvips]{color}
154
155
     \RequirePackage[dvips]{graphicx}
156 }
157 %
```

Now the natbib package is loaded with its options, appropriate to numrefs or textrefs class option. If numrefs is specified, then natbib is read-in with its options for "numbered" references and sorted & compressed (eg. [3-6,8-10]). In this case, the default delimiter is square brackets and the default seperator is a comma. For the textrefs option, the natbib package is read-in so as to sort the references in an "author-date" style of citations. The default delimiter and seperator, in this case, are round brackets and colon, respectively.

```
158 \ifnatbib@refs
159 \ifnum@refs
160 \RequirePackage[numbers]{natbib}
161 \else
162 \RequirePackage[authoryear]{natbib}
163 \fi
164 \fi
```

Additionally, the packages amsmath, float, booktabs, rotating, url and setspace are loaded when (pdf)LATEX processes \begin{document}. Again, the order of these packages is important. Additionally when using pdfLATEX, the package hyperref (for internal/external links in the document) is also loaded. The options for this package have been tested to produce a document which can be printed on laser printers without any problems because of colored link boxes. Megan added required package pdflscape, which is part of the oberdiek bundle in MiKTeX and TeXLive. Using this package will flip landscape pages on the screen so that it's easier to read.

```
165 \AtBeginDocument{
166 \RequirePackage{amsmath}
167 \RequirePackage{float}
168 \RequirePackage{booktabs}
169 \RequirePackage{rotating}
170 \RequirePackage{url}
```

```
171 \RequirePackage [doublespacing] {setspace} [2000/12/01]
\ifluatex
173
                  \RequirePackage[luatex]{pdflscape}
174
             \else
175
176
                  \ifxetex
177
                       \RequirePackage[xetex]{pdflscape}
178
                  \else
                       \ifpdf
179
                            \RequirePackage{pdflscape}
180
181
                  \fi
182
             \fi
183
184 }{}
185 }
186 \RequirePackage{metalogo}
187 %
  Here, if linenumbers is enabled, we load the lineno package and start numbering with
  \linenumbers when (pdf)LATEX processes \begin{document}.
188 \ifline@numbers
             \AtBeginDocument{%
189
                  \RequirePackage{lineno}%
190
  If a new enough version of lineno is installed, that is all we need, as it patches amsmath
  appropriately. If the lineno package is older, we include here (verbatim) the (obsolete)
  linenoamsmath package for patching amsmath
                  \@ifpackagelater{lineno}{2022/07/30}
191
                       {}%
192
                       {%
193
                            \newcommand*\linenoamsmath@patch[1]{%
194
                                 \cspreto{#1}{\linenomath}%
195
                                 \cspreto{#1*}{\linenomath}%
196
                                 \csappto{end#1}{\endlinenomath}%
197
                                 \verb|\csappto{end#1*}{\csapptomendmath}| % \csapptomendmath| % \csa
198
                            }
199
200
                            \newcount\linenoamsmath@ams@eqpen
201
                            \cspreto{math@cr@}{\global\@eqpen\numexpr\@eqpen+\linenoamsmath@ams@eqpen\relax}
                            \newcommand*\linenoamsmath@patch@ams[1]{%
202
                                 \cspreto{#1}{%
203
                                      \linenomath%
204
                                      \postdisplaypenalty=0%
205
                                      \global\linenoamsmath@ams@eqpen\interdisplaylinepenalty%
206
                                 }%
207
                                 \cspreto{#1*}{%
208
                                      \linenomath%
209
                                      \postdisplaypenalty=0%
210
211
                                      \global\linenoamsmath@ams@eqpen\interdisplaylinepenalty%
212
213
                                 \csappto{end#1}{%
```

\global\linenoamsmath@ams@eqpen\z@%

214

```
\endlinenomath%
215
             }%
216
              \csappto{end#1*}{%
217
                \global\linenoamsmath@ams@eqpen\z@%
218
                \endlinenomath%
219
220
             }%
           }
221
222
            \linenoamsmath@patch{equation}
            \linenoamsmath@patch@ams{multline}
223
            \linenoamsmath@patch@ams{gather}
224
            \linenoamsmath@patch@ams{align}
225
226
            \linenoamsmath@patch@ams{alignat}
227
            \linenoamsmath@patch@ams{flalign}
            \let\linenoamsmath@ams@mmeasure\mmeasure@
228
            \def\mmeasure@#1{%
229
              \global\linenoamsmath@ams@eqpen\z@%
230
              \begingroup%
231
              \interdisplaylinepenalty=0%
232
233
              \linenoamsmath@ams@mmeasure{#1\\}%
234
              \endgroup%
235
              \global\linenoamsmath@ams@eqpen\interdisplaylinepenalty%
236
         }%
237
       \linenumbers%
238
     }
239
240 \fi
Set the \pagestyle for the document to plain here and define default spacing.
241 \AtBeginDocument{
242 \pagestyle{plain}
243 \normalspacing
244 \typeout{Pagestyle and spacing normal}
245 }
246 %
Here, define some spacing macros for page layout and doublespacing.
247 \newcommand{\normalspacing}{\doublespacing}
248 \newcommand\single@baselinestretch{0.979}
249 \newcommand\double@baselinestretch{1.625}
250 \newlength{\usedtextsize}
251 \setlength{\usedtextsize}{\f@size pt}
252 \newlength{\single@skip}
253 \setlength{\single@skip}{\single@baselinestretch \usedtextsize}
254 \newlength{\double@skip}
255 \setlength{\double@skip}{\double@baselinestretch \usedtextsize}
256 \setlength{\footnotesep}{\double@skip}
```

Define new lengths for some variables for a proper layout of normal pages, pages with text and figures and pages with only floats. Note that although the geometry package is usually easier, when Megan tried to switch to that she discovered that something ends up overwriting it and, although the the showframe option showed that the margins were

setting correctly, the text didn't look like they were. So these length values are set to what geometry said they should be to get a 1.5 in left margin and 1 in margins on all other sides (we'll use vspace commands later to get the 2 in top margin on pages where that's needed). Note that \evensidemargin is only used if the twoside class option is enabled.

258 \setlength{\hoffset}{0pt} 259 \setlength{\voffset}{0pt}

```
260 \setlength{\topmargin}{-32pt}
                261 \setlength{\headsep}{20pt}
                262 \setlength{\marginparwidth}{47pt}
                263 \setlength{\marginparsep}{7pt}
                264 \setlength{\textheight}{648pt}
                265 \setlength{\textwidth}{432pt}
                266 \setlength{\oddsidemargin}{36pt}
                267 \setlength{\evensidemargin}{1.755pt}
                268 \setlength{\footskip}{30pt}
                269 %
                270 \setlength{\floatsep}{30pt}
                271 \setlength{\intextsep}{50pt}
                272 %
                273 \newcommand{\clearemptydoublepage}{\newpage{\pagestyle{empty}%
                274
                        \cleardoublepage}}
                275 %
       \nddiss Define the macro \nddiss that is the logo used in the titlepage and the stamp in the
                 dissertation document.
                276 \DeclareRobustCommand{\nddiss}{%
                            \textsf{{\scshape nd}diss}\kern-0.03em%
                277
                278
                            2$_\mathsf{\textstyle\varepsilon}$}
                279 %
         \work Here define new macros for use in the dissertation title page.
     \label{lem:command} $$\deg a^2 \simeq \sum_{n=0}^{\infty} \left( \frac{1}{\det \ell^{\#1}} \right) $$
      \label{lem:command} $$ \advisor $_{281} \newcommand{\work}[1]_{\def\\@work{\#1}}$
\label{lem:command} $$\operatorname{283 \newcommand}(advisor)[1]_{\def\\@advisor{\#1}}$
      \verb|\degdate||_{284} \verb|\degdate||_{284}
                285
                        \newcommand{\secondadvisor}[1]{\def\@secondadvisor{#1}}
                286 \fi
                287 \newcommand{\department}[1]{\def\@department{#1}}
                288 \newcommand{\degdate}[1]{\def\@degdate{#1}}
                289
                      \degdate{\ifcase\month\or
                        January\or February\or March\or April\or May\or June\or
                290
                        July\or August\or September\or October\or November\or December\fi
                291
                292
                        \space\number\year}
                293 %
```

As a default, these macros have an empty argument. Only the \degdate macro takes on the current month-year combination in the absence of any assignation.

```
294 % Defaults are empty except the \degdate
295 \title{}
296 \author{}
297 \work{}
298 \degaward{}
299 \advisor{}
300 \ifadvisors@two \secondadvisor{} \fi
301 \department{}
302 %
```

\@infopage

Define \@infopage macro that will create a page which contains important information about the document and the version of $NDdiss2_{\mathcal{E}}$ used etc. for the end-user and the proofreader along with a standard disclaimer and details of where to find documentation for the $NDdiss2_{\mathcal{E}}$ class file. This information can be suppressed by specifying the "noinfo" option while invoking the $NDdiss2_{\mathcal{E}}$ class.

```
303 \DeclareRobustCommand{\@infopage}{
     \thispagestyle{empty}
     \null\vspace*{\single@skip}
305
306
     \begin{center}
       This \@work\space \\ entitled \\ \MakeTextUppercase{\@title} \\
307
           typeset with \nddiss\ v%
308
         \dissfileversion\ (\dissfiledate) %
309
310
         on \today\space for\\
311
     \@author\\
     \end{center}
312
313
      \normalfont\normalsize\singlespacing
314
315
      \noindent This \LaTeXe\space classfile conforms to the
316
317
      University of Notre Dame style guidelines as of Fall
      2012. However it is still possible to generate a
318
319
      non-conformant document if the instructions in the class
      file documentation are not followed!
320
321
      \begin{center}
322
323
      \begin{minipage}{0.75\textwidth}
324
      \noindent Be sure to refer to the published Graduate
      School guidelines at \url{http://graduateschool.nd.edu}
325
326
      as well. Those guidelines override everything mentioned
      about formatting in the documentation for
327
      this \nddiss\space class file.
328
      \end{minipage}
329
      \end{center}
330
331
     \noindent\itshape This page can be disabled by
332
     specifying the ''{\upshape\ttfamily noinfo}'' option to the class invocation.
333
     \upshape
334
335 (i.e., {\ttfamily{\textbackslash}documentclass[\ldots,noinfo]\{nddiss2e\}}
336)
337
     \begin{center}
```

```
{\bfseries\large\singlespacing This page is \slshape NOT
                   \upshape part of the dissertation/thesis. It should be disabled before
           339
                  making final, formal submission, but should be included in the version
           340
                  submitted for format check.}
           341
                 \end{center}
           342
                   \normalsize\normalfont
           343
           344
                   \nddiss\ documentation can be found at these locations:
           345
                 \begin{center}
                   \url{http://graduateschool.nd.edu} \\
           346
                   \url{https://ctan.org/pkg/nddiss}
           347
                 \end{center}
           348
           349
            350 \vfill
           351 \normalfont\normalsize\normalspacing\eject}
\maketitle Redefine the macro \maketitle to set PDF metadata and produce the information page
            as well as the actual title page of the dissertation.
           353 \renewcommand{\maketitle}{
                 \hypersetup{
           354
           355
                     pdftitle={\@title},
           356
                     pdfauthor={\@author},
           357
                     pdfsubject={\@department}
            358
                 \ifinfo@page\@infopage\else\relax\fi%
            359
                 \clearemptydoublepage
            360
                 \normalfont\normalsize\normalspacing
 titlepage
            The structuring begins with checking the proper macros for obtaining correct formatting
            for the title page. If any of those are not defined, an error is issued and processing
            stopped. Most of the code for this was taken from the earlier ndthesis class and hence,
            the documentation is also picked from there.
                 \begin{titlepage}%
           362
           363 \ \texttt{\equal}(\texttt{\equal}{\classError} addiss2e)\%
                 {The \protect\work\space macro is undefined.\MessageBreak
           364
                       The title page may be incorrectly formatted.}%
            365
                 {Specify \protect\work\space as Dissertation or Thesis}}{\relax}
                ifthenelse{\equal{\@degaward}{}}{\ClassError{nddiss2e}%
           367
                 {The \protect\degaward\space macro is undefined.\MessageBreak
           368
                        The title page may be incorrectly formatted.}%
           369
                 {Specify \protect\degaward\space. It defines the awarded degree%
           370
                         (Ph.D., M.S., etc.)}}{\relax}
           371
           372 \ifthenelse{\equal{\@advisor}{}}{\ClassError{nddiss2e}%}
                 {The \protect\advisor\space macro is undefined.\MessageBreak
           373
           374
                       The title page may be incorrectly formatted.}%
                 {Spepcify \protect\advisor\space It is who signs your walking papers!}}{\relax}
           375
           376 \left\{ \left( \frac{\ensuremath{\{\}\}}{\classError{nddiss2e}}\% \right)}{\classError{nddiss2e}}\%
                 {The \protect\department\space macro is undefined.\MessageBreak
           377
           378
                        The title page may be incorrectly formatted.}%
```

338

379

{Specify which \protect\department\space is awarding your degree?}}{\relax}

```
380 \ifadvisors@two
381 \iffthenelse{\equal{\@secondadvisor}{}}{\ClassError{nddiss2e}%
382 {The \protect\secondadvisor\space macro is undefined.\MessageBreak
383 The title page may be incorrectly formatted.}%
384 {Use \protect\secondadvisor\space for your second advisor}}{\relax}
385 \fi
386 %
```

Now set up some skip registers to hold the inter-data spacing. The initial values will create a two-inch top margin for the title page, provided the title is only one line long. \skip1 is the primary internal spacing command; \skip2 is the spacing between the student's name and the line for the first adviser to sign if there are two advisers and \skip3 is the spacing between the student's name and the line for the adviser to sign if there is only one adviser; \skip4 controls the top margin. We'll account for titles longer than one line in a bit ...

```
387 \skip1=2.1\double@skip
388 \skip2=1.7\double@skip
389 \skip3=2.7\double@skip
390 \skip4=36pt
391 %
```

If the author has two advisors, we need to do a little tweaking to the internal spacing.

```
392 \ifadvisors@two
393 \skip1=1.6\double@skip
394 \else\relax
395 \fi
```

The 2012 formatting guidelines require the title to be 2" from the top of page. If it's more than one line long, we need to adjust the internal spacing:

```
\setbox0=\vbox{\MakeTextUppercase{\@title}}
    \ifdim \ht0 > 3\double@skip
397
      \advance \skip1 -.75\double@skip
398
    \else
399
      \ifdim \ht0 > 2\double@skip
400
        \advance\skip1 -.5\double@skip
401
402
      \else
        \ifdim \ht0 > \double@skip
403
404
           \advance\skip1 -.25\double@skip
405
        \fi
      \fi
406
407 \fi
```

Our default assumes a one-line degree field such as

Doctor of Philosophy

but we check to see if it is two or three lines long. If so, we need to remove those extra lines from the internal spacing.

```
408 \setbox1=\vbox{\@degaward}

409 \ifdim \ht1 > 2\double@skip

410 \advance\skip1 -.5\double@skip

411 \else
```

```
412 \ifdim \ht1 > \double@skip
413 \advance \skip1 -.25\double@skip
414 \else
415 \relax
416 \fi
417 \fi
```

If we have two advisers, a three or four line title, and a three line degree field or two advisers, a four line title, and a two line degree field, then we need to remove some spacing between the name and the first adviser and from the top margin, and give that space to the internal spacing.

```
\ifadvisors@two
418
        \ifdim \ht0 > 3\double@skip
419
420
          \ifdim \ht1 > \double@skip
            \advance \ship4 -.675\double@skip
421
422
            \advance \skip2 -.4\double@skip
423
            \advance \skip1 .25\double@skip
424
          \else \relax
425
          \fi
        \else
426
          \ifdim \ht0 > 2\double@skip
427
            \ifdim \ht1 > 2\double@skip
428
              \advance \skip2 -.4\double@skip
429
              \advance \skip1 .1\double@skip
430
431
            \else \relax
432
433
          \else \relax
434
          \fi
        \fi
435
     \else \relax
436
437
     \fi
 Finally we start putting the text in place ... centered, of course.
     \null\vspace*{\skip4}
438
     \begin{center}%
439
        \MakeTextUppercase{\@title} \par%
440
441
        \vskip\skip1%
442 %
```

Now skip the required vertical space, declare that this is for the University of Notre Dame, and list what degree has been earned.

```
A \@work \par%
443
444
       \vskip\skip1%
445
         Submitted to the Graduate School \\
446
              of the University of Notre Dame \\
447
              in Partial Fulfillment of the Requirements \\
             for the Degree of \par
448
            \vskip\skip1%
449
            \@degaward%
450
            \vskip\skip1%
451
           by \\%
452
```

```
453 %
```

Now format the author's name.

```
454 \Qauthor 455\ \%
```

Now skip the proper space and place the signature line for the advisor with his/her name typeset below it. This is accomplished by essentially centering a box that is twice as long as the required length of the signature line and placing the line in only the right-hand side.

```
456
        \ifadvisors@two
457
           \vskip\skip2
           \hspace*{2.75in}\underline{\hspace{2.75in}}\%
458
           \hspace*{2.75in}\@advisor, Co-Director\\
459
        \else
460
           \vskip\skip3
461
           \hspace*{2.75in}\underline{\hspace{2.75in}}\%
462
463
           \hspace*{2.75in}\@advisor, Director\\
        \fi%
464
465 %
```

If there is a second advisor, place that line here now.

```
466 \ifadvisors@two %
467 \vskip\double@skip%
468 \hspace*{2.75in}\underline{\hspace{2.75in}}\\%
469 \hspace*{2.75in}\@secondadvisor, Co-Director\\
470 \fi
471 %
```

We end with the department and date; the internal spacing is chosen so that these are at the page bottom.

```
472 \vskip\skip1%
473 Graduate Program in \@department \\%
474 Notre Dame, Indiana \\
475 \@degdate
476 \end{center}
477 \end{titlepage}%
478 }
479 %
```

copyrightpage

The environment copyrightpage defines the defaults for proper formatting the copyright page (if opted).

```
480 \newenvironment{copyrightpage}{%
481 \clearemptydoublepage
482 \typeout{Copyright page}
483 \pagestyle{empty}
484 \null\vfil
485 \begin{center}\normalspacing}%
486 { \end{center}\vfil\null \clearpage }
487 %
```

\copyrightholder \copyrightyear

Define a few macros for defining the copyright holder and the year desired. By default, they are taken as the current year and the author of the dissertation.

```
488 \newcommand{\@copyrightyear}{\the\year}
489 \newcommand{\@copyrightholder}{\@author}
490 \newcommand{\@copyrightlicense}{All Rights Reserved}
491 \newcommand{\copyrightyear}[1]{\renewcommand{\@copyrightyear}{#1}}
492 \newcommand{\copyrightholder}[1]{\renewcommand{\@copyrightholder}{#1}}
493 \newcommand{\copyrightlicense}[1]{\renewcommand{\@copyrightlicense}{#1}}
```

\makecopyright Finally, the \makecopyright macro creates the copyright page as per defined in the copyrightpage environment.

```
\ifdiss@final
496
497
       \begin{copyrightpage}
498
       \normalfont\normalsize
499
       \copyright\space Copyright by \\
500
       \@copyrightholder \\
       \@copyrightyear\\
501
502
      \@copyrightlicense \\[10mm]
503
      \end{copyrightpage}
504
    \fi
505 }%
506 %
```

\makepublicdomain Or, if chosen, \makepublicdomain macro creates a copyright page (using earlier copyrightpage environment) that puts the document in public domain.

```
507 \newcommand{\makepublicdomain}{%
508
     \ifdiss@final
509
       \begin{copyrightpage}
          This document is in the public domain.
510
       \end{copyrightpage}
511
512
     \fi
513 }%
514 %
```

Define some new name macros and redefine other name macros as below. These are the names of the respective sections in your dissertation document. If there's a need to change any name, you must use a similar command in the preamble of your document.

```
515 \providecommand{\abstractname}{Abstract}
516 \providecommand{\dedicationname}{\mbox{}}
517 \providecommand{\prefacename}{Preface}
518 \providecommand{\acknowledgename}{Acknowledgments}
519 \providecommand{\symbolsname}{Symbols}
520 \renewcommand{\tablename}{Table}
521 \renewcommand{\figurename}{Figure}
522 \renewcommand{\partname}{Part}
523 \renewcommand{\chaptername}{Chapter}
524 \renewcommand{\appendixname}{Appendix}
```

```
525 \renewcommand{\contentsname}{Contents}
526 \renewcommand{\listfigurename}{Figures}
527 \renewcommand{\listtablename}{Tables}
528 \renewcommand{\bibname}{Bibliography}
529 \renewcommand{\indexname}{Index}
530 %
```

abstract This environment is adapted from the report class since the book class does not have one. Additionally, we add a \pdfbookmark for the abstract in the pdf document.

```
531 \newenvironment{abstract}{%
532  \ifboolexpr{bool{pdf} or bool{xetex} or bool{luatex}}{%
533    \pdfbookmark[0]{\abstractname}{abstract}%abstract.0
534  }{}
535  \typeout{Abstract page(s)}
536  \renewcommand{\@oddfoot}{\@empty}
537  \renewcommand{\@evenfoot}{\@empty}
```

If the abstract extends to a second page, place the author's name in top right corner of that page. Make sure it's upright, as required by the University and that this appears at 0.75'' from the top.

```
\let\@evenhead\@oddhead
538
    539
540
    \titlepage
541
    \null
542
    \begin{center}
    \vspace*{36pt}
543
    {\normalsize\mdseries \normalspacing
544
       \MakeTextUppercase{\@title} \\[3.5ex]
545
546
       \normalsize\abstractname \\ by \\ \@author\space}%
     \@endparpenalty \@M
547
548
     \end{center}\par}%
549 {\par\vfil\null\endtitlepage}
550 %
```

dedication

The dedication environment is similar to the abstract environment. This page is numbered 2 and the subsequent pages are numbered accordingly. A pdfbookmark is not created because of a reported issue that Adobe products have with pdfbookmarks containing an \mbox.

\tableofcontents

The \tableofcontents macro is redefined to begin at page 2 if the dedication environment does not exist. It is single-spaced.

```
560 \renewcommand\tableofcontents{%
     \ifdiss@dedication\relax\else\setcounter{page}{2}\fi
561
     \chapter*{\contentsname}%
562
     \ifboolexpr{bool{pdf} or bool{xetex} or bool{luatex}}{%
563
         \pdfbookmark[0]{\contentsname}{contents}%contents.0
564
565
     }{}
566
     \singlespacing
     \@starttoc{toc}%
567
     \normalspacing
568
569
     }
570 %
```

\listoffigures \listoftables

These macros are modified to add the \listfigurename and \listoftables to the Table of Contents. Both of these are also single spaced. The inter-entry spacing is changed by adding a \vskip after each entry. This is done in the figure and table environments later.

```
571 \renewcommand\listoffigures{%
572
       \chapter*{\listfigurename}%
       \addcontentsline{toc}{chapter}{\listfigurename}%
573
574
       \typeout{List of figures - \listfigurename}
575
       \singlespacing
       \@starttoc{lof}%
576
577
       \normalspacing
578 }
579 %
580 \renewcommand\listoftables{%
       \chapter*{\listtablename}%
581
       \addcontentsline{toc}{chapter}{\listtablename}%
582
       \typeout{List of tables - \listtablename}
583
       \singlespacing
584
585
       \@starttoc{lot}%
       \normalspacing
586
587 }
588 %
```

preface
acknowledgement

These environments are similar to the dedication environment. They are defined as \chapter*{} so they are not numbered and not added to Table of Contents and so, add that manually by using \addcontentsline.

```
589 \newenvironment{preface}{%
     \typeout{Preface page}
590
     \chapter*{\prefacename}
591
     \addcontentsline{toc}{chapter}{\prefacename}%
592
593 }%
594 {\par\null\clearpage}%
595 %
596 \newenvironment{acknowledge}{%
     \typeout{Acknowledgment page}
597
     \chapter*{\acknowledgename}
598
599
     \addcontentsline{toc}{chapter}{\acknowledgename}%
600 }%
```

```
601 {\par\null\clearpage}%
               602 %
\unnumchapter Allows the user to create unnumbered chapters that appear in the TOC.
               603 \newcommand\unnumchapter[1]{%
                    \chapter*{#1}%
                    \addcontentsline{toc}{chapter}{#1}}
               605
      symbols Define symbols environment which lays out it as a \chapter* and adds \symbolsname
               to the TOC. The environment is actually a horizontally centered longtable environment.
                To aid entry of a symbol and its definition, \sym macro command is also defined.
               606 \newcommand{\sym}[2]{\ensuremath{#1} & #2 \\}
               607 \newenvironment{symbols}[1][rl]{%
                    \typeout{Symbols page}
               608
               609
                    \chapter*{\symbolsname}%
                    \addcontentsline{toc}{chapter}{\symbolsname}%
               610
                    \begin{center}\begin{longtable}{#1}}%
               611
               612 {\end{longtable}\end{center}\par\null}
               613 %
                Modify chapter definition in \@chapter to put the word "Chapter" (\@chapter) in the
                Table of Contents. That is, now the TOC will contain "Chapter 1: First chapter" rather
                than "1. First chapter." The rest of the format code is essentially the same as that in
                the book class.
               614 \def\@chapter[#1]#2{
                    \ifnum \c@secnumdepth >\m@ne
               616
                    \if@mainmatter
                       \refstepcounter{chapter}%
               617
                       \typeout{\MakeTextUppercase{\@chapapp\space\thechapter.}}%
               618
                       \addcontentsline{toc}{chapter}%
               619
               620
                         {{\@chapapp\ \thechapter: #1}}%
               621
                       \else
                         \addcontentsline{toc}{chapter}{#1}%
               622
                       \fi
               623
                    \else
               624
                        \addcontentsline{toc}{chapter}{#1}%
               625
                    \fi
               626
                    \chaptermark{#1}%
               627
                    \addtocontents{lof}{\protect\addvspace{10\p0}}%
               628
                    \addtocontents{lot}{\protect\addvspace{10\p0}}%
               629
                    \@makechapterhead{\MakeTextUppercase{#2}}%
               630
               631
                    \@afterheading }%
               632 %
                Modify part definition in \@part and \@spart to keep the font size for part headings
                \normalsize and \mdseries. It is otherwise the same as in the book class.
               633 \def\@part[#1]#2{%
                    \ifnum \c@secnumdepth >-2\relax
               634
                       \refstepcounter{part}%
               635
```

\addcontentsline{toc}{part}{\partname\ \thepart:\hspace{1em}#1}%

636

```
637
     \else
       \addcontentsline{toc}{part}{#1}%
638
     \fi
639
     \markboth{}{}%
640
641
     {\centering
642
      \interlinepenalty \@M
643
      \normalfont
644
      \ifnum \c@secnumdepth >-2\relax
        \normalsize\mdseries \MakeTextUppercase{\partname}\nobreakspace\thepart
645
646
        \par
        \vskip 20\p0
647
648
     \normalsize\mdseries \MakeTextUppercase{#2}\par}%
649
     \@endpart}
650
651 \def\@spart#1{%
       {\centering
652
        \interlinepenalty \@M
653
        \normalfont
654
655
        \normalsize\mdseries #1\par}%
656
        \@endpart}
657 %
```

Now format section headings to conform to the official guidelines.

\@makechapterhead

First, modify the chapter heading label to be normalsize'd and centered. Instead of the bold-faced heading label, also make it \mdseries. If we are in the \mainmatter, we add "CHAPTER" and chapter number before actually putting the chapter name otherwise only the "chapter name" is put. Note that chapter/section headings must all be double-spaced.

```
658 \renewcommand{\@makechapterhead}[1]{%
     \vspace*{30pt}%
659
     {\parindent \z@ \raggedright
660
661
       \ifnum \c@secnumdepth >\m@ne
         \normalfont\normalsize%
662
         \if@mainmatter
663
            \ifcentered@chaptitle\center\else\relax\fi%
664
665
            \MakeTextUppercase{\@chapapp{} \thechapter}\par\nobreak
         \fi
666
       \fi
667
       \interlinepenalty\@M
668
       \ifcentered@chaptitle\center\else\relax\fi%
669
       \mdseries{#1}\par\nobreak
670
       \vskip 30\p@
671
672
     }}
673 %
```

\@makeschapterhead

Make the TOC, LOF, LOT and other \chapter* headings in normal size, and \mdseries by modifying the macro \@makeschapterhead. Although these heading labels usually fit in a single-line, we copy the formatting for the chapter heading label (single-spacing) and make the spacing double again for the text.

 $674 \ensuremath{\ensuremath{\mbox{\mbox{0}makeschapterhead}}\xspace} [1] \ensuremath{\mbox{\mbox{0}}}$

```
\vspace*{30pt}%
675
     {\parindent \z@ \raggedright
676
        \normalfont\normalsize%
677
        \interlinepenalty\@M
678
        \ifcentered@chaptitle\center\else\relax\fi
679
680
        \mdseries{\MakeTextUppercase{#1}}\par\nobreak
681
        \vskip 30\p@
     }}
682
683 %
```

Now, set the section labels to \mdseries rather than bold-faced. We also make sure that these are set in normal spacing, font and size. This is done for each of \section, \subsubsection, \subsubsection, \paragraph and \subparagraph.

```
684 \renewcommand\section{\suppressfloats[t]%
       \c \
685
       {-4.2ex \@plus -1ex \@minus -.2ex}%
686
       {1.8ex \@plus.2ex}%
687
       {\normalfont\normalsize\mdseries} }
688
689 \renewcommand\subsection{\suppressfloats[t]%
690
       \@startsection{subsection}{2}{\z@}%
691
       {-3.9ex}\ -1ex \@minus -.2ex}%
       {1.2ex \@plus .2ex}%
692
693
       {\normalfont\normalsize\mdseries} }
694 \renewcommand\subsubsection{\suppressfloats[t]%
       \@startsection{subsubsection}{3}{\z@}%
695
       {-3.9ex\@plus -1ex \@minus -.2ex}%
696
       {1.2ex \@plus .2ex}%
697
       {\normalfont\normalsize\mdseries} }
698
699 \renewcommand\paragraph{%
       \@startsection{paragraph}{4}{\z@}%
700
701
       {3.9ex \@plus1ex \@minus.2ex}%
       {-1em}%
702
703
       {\normalfont\normalsize\mdseries} }
704 \renewcommand\subparagraph{%
       \verb|\delta rtsection{subparagraph}{5}{\parindent}||
705
706
       {3.9ex \@plus1ex \@minus .2ex}%
707
       {-1em}%
       {\normalfont\normalsize\mdseries} }
708
709 %
```

Opart Modify the macro \logart that formats part titles in the contents-like files (.toc, .lof and .lot) by adding a \Odottedtocline macro. The indent width is set to 1.5em to line up a continued line with the section number below it. We also leave less space between each part and the last section entry than the default and don't change the font.

```
710 \renewcommand*\l@part[2]{%
711 \ifnum \c@tocdepth >-2\relax
712 \addpenalty{-\@highpenalty}%
713 \setlength\@tempdima{1.5em}%
714 \begingroup
715 {\leavevmode
```

```
\@dottedtocline{1}{Opt}{\@tempdima}{#1}{#2}
716
         }\par
717
          \nobreak
718
             \global\@nobreaktrue
719
             \everypar{\global\@nobreakfalse\everypar{}}%
720
721
        \endgroup
722
     fi
723 %
```

\lambda Modify the macro \lambda Chapter that formats chapter titles in the contents-like files (.toc, .lof and .lot) by adding a \@dottedtocline macro. The indent width is set to 1.5em - to line up a continued line with the section number below it. We also leave less space between each chapter and the last section entry than the default.

```
724 \renewcommand*{\l@chapter}[2]{%
    \addpenalty{-\@highpenalty}%
725
    \setlength\@tempdima{1.5em}%
726
    \begingroup \leavevmode
727
    728
729
    \penalty\@highpenalty
730
    \endgroup
731
732 }
733 %
```

\thesubsubsection

We increase the number of section-depth by 1 and force subsubsection entry in the TOC by increasing the \tocdepth. In addition, the label number of \subsubsection is defined to be similar to that for \subsection i.e. all arabic numerals.

```
734 \addtocounter{secnumdepth}{1}
735 \addtocounter{tocdepth}{1}
736 \renewcommand{\thesubsubsection}{%
      \thesubsection.\arabic{subsubsection}}
737
738 %
```

quote Redefine the quote environment to be single-spaced instead of being same as the rest of the text.

```
739 \renewenvironment{quote}
                                                                                                                                                                                                                                                                                                                                                  {\climates} % \climates {\climates of the constrain of the constraints of the constrain
740
741
                                                                                                                                                                                                                                                                                                                                                                                        \singlespacing
                                                                                                                                                                                                                                                                                                                                                  \item\relax}
742
                                                                                                                                                                                                                                                                                                                                                  {\endlist}
743
744 %
```

Have singlespaced items in lists.

```
745 \AtBeginEnvironment{itemize}{\par\singlespacing}
746 \AtBeginEnvironment{enumerate}{\par\singlespacing}
747 \AtBeginEnvironment{description}{\par\singlespacing}
748 \AtBeginEnvironment{tablenotes}{\footnotesize}
749 \mbox{\TPTdoTablenotes}{\temsep\z0}{\temsep10pt}{}{}
750 \xpatchcmd{\TPTdoTablenotes}{\itemindent\z@}{\itemindent18pt}{}{}
```

Set some lengths that are used in the table and the figure environments. Note that we set the caption width (\capwidth) to be 90% of the \textwidth.

```
751 \setlength\abovecaptionskip{20\p@}
752 \newlength\capwidth
753 \setlength{\capwidth}{0.90\textwidth}
754 \newlength\abovetableskip
755 \newlength\abovetableskip
756 \newlength\abovefigureskip
757 \newlength\belowfigureskip
758 \setlength\abovetableskip\belowcaptionskip
759 \setlength\belowtableskip\abovecaptionskip
760 \setlength\abovefigureskip\abovecaptionskip
761 \setlength\belowfigureskip\belowcaptionskip
762 %
```

For the figure environment, first some skip lengths are set, then use \@makefigurecaption to format the captions instead of the default \@makecaption, since the layout is different for figure and the table environment. Further add a \vskip to each entry in .lof file so that the inter-caption spacing seems double-spaced.

```
763 \renewenvironment{figure}{%
764
      \setlength{\abovecaptionskip}{\abovefigureskip}
765
      \setlength{\belowcaptionskip}{\belowfigureskip}
766
      \let\@makecaption\@makefigurecaption
      \@float{figure}}%
767
768
      \addtocontents{lof}{ {\vskip 0.4em} }%
769
      \end@float%
770
771 }
772 %
```

\@makefigurecaption

The \@makefigurecaption is defined to format the caption in a parbox with width equal to \capwidth and is formatted in single-spacing. The interline-spacing is then changed to double after the caption.

```
773 \long\def\@makefigurecaption#1#2{%
774
     \vskip\abovecaptionskip
775
     \begin{center}
     \parbox{\capwidth}{
776
777
       \centering\singlespacing
778
        {#1}. {#2}%\par
     \vskip\belowcaptionskip\normalspacing }%
779
780
     \end{center}
781 }%
782 %
```

After setting the above and below skip lengths, the table environment is set to be single spaced. However, to obtain double-spacing between the entries, redefine the \arraystretch to be equivalent to the \double@baselinestretch. This way, while there are double-spaced entries, the entry itself is single-spaced. Similar to that in \@makefigurecaption, a \vskip is added to each entry in the .lot file.

```
784
                          \setlength{\abovecaptionskip}{\abovetableskip}
                          \setlength{\belowcaptionskip}{\belowtableskip}
                    785
                          \renewcommand{\arraystretch}{\double@baselinestretch}
                    786
                          \let\scaption\caption%
                    787
                    788
                          \renewcommand*{\caption}[2][]{%
                    789
                            \left\{ \left( -\frac{4}{1} \right) \right\} 
                               \def\shortcaption{##2}%
                    790
                            }{%
                    791
                               \def\shortcaption{##1}%
                    792
                            }%
                    793
                            \scaption[\shortcaption]{\MakeTextUppercase{##2}}%
                    794
                    795
                          \let\@makecaption\@maketablecaption
                    796
                          \@float{table}[#1]%
                    797
                          \singlespacing%
                    798
                          }%
                    799
                    800
                    801
                          \addtocontents{lot}{ {\vskip 0.4em} }%
                    802
                          \end@float%
                    803 }
                    804 %
                    The \@maketablecaption is defined similarly to \@makefigurecaption to have the table
\@maketablecaption
                     label and caption in separate lines and with normal-spacing (double-spaced).
                    \vskip\abovecaptionskip
                    806
                         \begin{center}
                    807
                            \makebox[\linewidth]{
                    808
                             \parbox{\capwidth}{
                    809
                             \centering\normalspacing
                    810
                             \MakeTextUppercase{#1}\\[\single@skip]
                    811
                             {#2}%\par
                    812
                           \vskip\belowcaptionskip }%
                    813
                           }%
                    814
                    815
                         \end{center}
                    816 }
                    817 %
        \longtable
                    Similar to the table environment, the longtable environment is made singly-spaced but
                     the \arraystretch is made equal to double the baselinestretch.
                    818 \renewcommand\longtable{%
                    819
                          \singlespacing
                          \renewcommand{\arraystretch}{\double@baselinestretch}
                    820
                          \begingroup
                    821
                          \@ltfirstcaptiontrue
                    822
                          \@ifnextchar[\LT@array{\LT@array[x]}}
                    823
                    824 %
```

783 \renewenvironment{table}[1][tbp]{%

\endlongtable This bit is taken from longtable.sty. In order to obtain double-spacing in the list of

```
tables, a \vskip of 0.4em is added to .lot file.
825 \renewcommand\endlongtable{%
826
     \crcr
     \noalign{%
827
828
       \let\LT@entry\LT@entry@chop
        \xdef\LT@save@row{\LT@save@row}}%
829
830
     \LT@echunk
     \LT@start
831
     \unvbox\z@
832
     \LT@get@widths
833
     \if@filesw
834
       {\let\LT@entry\LT@entry@write\immediate\write\@auxout{%
835
836
         \gdef\expandafter\noexpand
            \csname LT@\romannumeral\c@LT@tables\endcsname
837
838
              {\LT@save@row}}}%
839
     \fi
     \ifx\LT@save@row\LT@@save@row
840
841
     \else
       \LT@warn{Column \@width s have changed\MessageBreak
842
843
                 in table \thetable}%
       \LT@final@warn
844
     \fi
845
     \endgraf\penalty -\LT@end@pen
846
     \addtocontents{lot}{ {\vskip 0.4em} }%
847
     \endgroup
848
     \global\@mparbottom\z@
849
     \pagegoal\vsize
850
851
     \endgraf\penalty\z@\addvspace\LTpost
     \ifvoid\footins\else\insert\footins{}\fi
852
853 }
854 %
 manner as \maketablecaption.
855 \setlength{\LTcapwidth}{\capwidth}
```

\LT@makecaption For the longtable environment, the \LTcapwidth is set equal to \capwidth. In order to obtain consistent table captions, the command \LT@makecaption is modified in a similar

```
856 \renewcommand\LT@makecaption[3] {%
     \LT@mcol\LT@cols c{\hbox to\z@{\hss\parbox[t]\LTcapwidth{%
857
     \vskip\abovetableskip%
858
       \centering\normalspacing
859
       \if@ltfirstcaption
860
       #1{\MakeTextUppercase{#2} }\\[\single@skip]
861
       \MakeTextUppercase{#3}\par
862
863
       #1{\MakeTextUppercase{#2 (continued)} }\par
864
865
     \global\@ltfirstcaptionfalse
866
     \endgraf\vskip\belowtableskip}%
867
868
     hss}
869 %
```

\timenow This macro is used in making the \draftheader and \reviewheader below. It outputs time in HH:MM format.

```
870 \newcommand\timenow{%
871 \Otempcnta=\time \divide\Otempcnta by 60 \number\Otempcnta:\multiply
872 \Otempcnta by 60 \Otempcntb=\time \advance\Otempcntb by -\Otempcnta
873 \ifnum\Otempcntb <10 O\number\Otempcntb\else\number\Otempcntb\fi}
874 %
```

\diss@header

This header is used in the dissertation document when the **draft** or **review** option is used. These headers serve as a note for the date and time of the document compilation.

```
875 \newcommand{\diss@header}{%

876 \ifdiss@review Review \else Draft \fi document [\today\/ at \timenow\/]

877 }%

878 %
```

The header prepared above is put in the document by modifying the *plain* and *empty* pagestyles except when the final option is chosen.

```
879 \ifdiss@final
        \renewcommand{\ps@plain}{
880
881
            \renewcommand{\@oddhead}{\@empty}
            \renewcommand{\@oddfoot}{\hfil\thepage\hfil}
882
883
            \let\@evenhead\@oddhead
            \let\@evenfoot\@oddfoot
884
       }%
885
886 \ensuremath{\setminus} else
        \renewcommand{\ps@plain}{
887
            \renewcommand{\@oddhead}{\framebox[\textwidth]{
888
889
               \centering\footnotesize\tt\diss@header}}%
            \renewcommand{\@oddfoot}{\hfil\textrm{\thepage}\hfil}
890
            \let\@evenhead\@oddhead
891
            \let\@evenfoot\@oddfoot
892
       }%
893
894
        \renewcommand{\ps@empty}{
895
            \renewcommand{\@oddhead}{\framebox[\textwidth]{
896
               \centering\footnotesize\tt\diss@header}}%
897
            \renewcommand{\@oddfoot}{\@empty}
898
            \let\@evenhead\@oddhead
899
            \let\@evenfoot\@oddfoot
900
        }%
901 \fi
902 %
```

\bibsection By redefining \bibsection macro, add the \bibname to the table of contents and as a chapter heading for the bibliography.

```
903 \ifnatbib@refs
904 \renewcommand{\bibsection}{
905 \chapter*{\bibname}%
906 \addcontentsline{toc}{chapter}{\bibname}%
907 }%
```

```
908 \fi
909 %
```

\bibfont Changed the \bibfont macro to obtain single-spacing within each bibliographic entry. Between different entries, it is still \normalspacing. In addition, when the numrefs option is selected, the \Obiblabel is redefined to number the bibliographic entries as 1. xxxx instead of the default [1] xxxx.

```
910 \ifnatbib@refs
     \renewcommand{\bibfont}{\singlespacing}
911
912
     \ifnum@refs
913
       \renewcommand{\@biblabel}[1]{\hfill#1.\hfill}
914
915 \fi
916 %
```

Lastly, after the bibliography in the final document, add a framed box which contains a blurb about the typesetting program and $NDdiss2_{\varepsilon}$ version used for preparing the dissertation document.

```
917 \ifdiss@final
918 \AtEndDocument{}
919
       \vfill
920
       \centering\singlespacing
        \framebox[0.85\textwidth]{
921
       \begin{minipage}{0.80\textwidth}\footnotesize%
922
       \centering \itshape This document was prepared \& typeset with
923
       \upshape
924
925
       \ifluatex
926
         \LuaLaTeX
       \else\ifxetex
927
         \XeLaTeX
928
       \else\ifpdf
929
         pdf\LaTeX
930
931
       \else
932
         \LaTeXe
933
       \fi\fi\fi
934
       \itshape , and
       formatted with \upshape\nddiss\xspace\itshape classfile
935
       (v\dissfileversion [\dissfiledate])
936
       \end{minipage} }
937
938
       \clearpage}
939 \else\relax\fi
940 %
941 % \endinput
942 % End of file 'nddiss2e.cls'.
```

Change History

v0.98	addition of support for parts
General: Initial $beta$ version 1	MP 1
v1.0	$\mathrm{v}3.2013eta$
Release: First release	Release: Initial release of updates in order to comply with the Graduate School's current formatting regulations and to take advantage of some LaTeX package updates. Should be functional, and has been approved by the Dissertation/Thesis editors,
v3.0 Release: Major revamp and clean-up of the code, added	but has not undergone wide-scale testing Megan Patnott
numrefs and textrefs to allow different kinds of citation styles, added some more macros and modified others,	Release: Fix natbib/showkeys ordering bug 1 v3.2017.1
changed the titlepage a bit, completed source documentation	Release: Display (CONTINUED) on multipage long table captions
Release: Some bug fixes, minor changes in documentation, and	Release: Add LuaLaTeX support. Allow non-capitalized titles 1