

The `ryethesis` class*

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1 Introduction

This class provides a document formatted to the Ryerson University School of Graduate Studies policy on Thesis Requirements, as published at the Ryerson SGS policy Web site. This class includes formatting for dissertations and reports (e.g. MEng reports), handles the formatting of all required front and back matter, and defines a number of commands for specifying content. Page numbering as per Ryerson SGS requirements is handled automatically as is the ordering of information. Some content (e.g. author declaration) are inserted automatically. Other commands (e.g. `\dedication`) are provided to define optional information. The intent of this class is to allow Ryerson students to focus on the content of the thesis or dissertation and have \LaTeX handle the minutia of formatting to SGS requirements. If you are aware of any deficiencies or errors, please contact the author or submit your own patches.

This class file is largely built upon the existing `book` class and thus inherits many options (e.g. `oneside`, `twoside`) from this class. There are some specifications in Ryerson's thesis formatting regulations that differ from typical \LaTeX formatting (e.g. Appendices appear in a separate List of Appendices instead of within the Table of Contents). To better control the order in which content appears, the user should make use of the commands described in Section 2 to specify content (e.g. `\abstract` and `\appendix` commands). This deviates somewhat from typical \LaTeX usage where the author specifies front, main and back matter manually in the order in which they wish the material to appear.

2 Usage

Several macros are available for defining the various content within the thesis, dissertation or report. Please refer to the included `sample`, `ryesample.tex`, for additional examples of usage. In writing the thesis you should focus on inserting the main matter of the document within the `document` environment. Front and back

*This document corresponds to `ryethesis` v1.3, dated 2010/06/18.

matter content, such as the abstract and appendices should be defined using the respective commands listed below. Most of the following macros should be called in the preamble of the document (i.e. before the `\begin{document}` environment), with exceptions noted below.

`\title` This macro is used to define the title of the work, as in the base L^AT_EX classes. This title will appear on the title page and abstract page. Capitalize your title as normal. The title on the title page will be typeset using small caps.

`\title` $\{\langle Your Document Title \rangle\}$

`\author` Your full name as it will appear on the title and abstract page. The usage is the same as with the `book` and other classes.

`\author` $\{\langle Your Name \rangle\}$

`\degreeName` The full name of your degree (e.g. Doctor of Philosophy, Masters of Applied Science). Do not use abbreviations.

`\degreeName` $\{\langle Full Degree Name \rangle\}$

`\degreeYear` The year that the degree will be awarded, typically the year of convocation.

`\degreeYear` $\{\langle Year of Convocation \rangle\}$

`\program` The name of the graduate program (e.g. Aerospace Engineering).

`\program` $\{\langle Program Name \rangle\}$

`\prevDegreeA` The full name, location and year of any previous completed degrees, starting
`\prevDegreeB` with the most recent (`\prevDegreeA`) through to the oldest (`\prevDegreeD`). Cur-
`\prevDegreeC` rently only a maximum of four previous degrees are implemented. The arguments
`\prevDegreeD` to each `\prevDegree?` command is the same.

`\prevDegreeA` $\{\langle Full Degree Name \rangle\}\{\langle University \rangle\}\{\langle Year of Degree \rangle\}$

`\partnerUniversity` The name of any partner University or school affiliated with the granting of this degree. As Ryerson has a full-fledged graduate program this command is optional and likely rarely used.

`\partnerUniversity` $\{\langle University Name \rangle\}$

`\abstract` This macro defines the content of the abstract which should abide by SGS policy. Do not use equations and avoid symbols if possible. The header of the abstract will be formatted automatically using the content defined by the previous commands. The current Ryerson word limit on abstracts is 350 words for a PhD thesis, 150 words otherwise. If no abstract is defined a message regarding “Abstract goes here” will appear within your document. An abstract is mandatory for the final version of your thesis.

`\abstract` $\{\langle The summary of your document, abiding by the word limit rules \rangle\}$

`\acknowledgements` The acknowledgements and dedication sections are optional, but can be defined using these commands.

`\dedication`

`\acknowledgements`{*\langle Any person(s) whose work or help you wish to acknowledge \rangle*}

`\dedication`{*\langle Anyone to whom you wish to dedicate this work \rangle*}

`\addtoreferences` As this class tightly controls the order of appearance of content within the document, it is necessary to provide a command for specifying BIB_TE_X input files. For each .bib file you wish to use, use a `\addtoreferences` command before the end of the `document` environment. Do not use the `\bibliography` command directly within the document. You do not need to specify the .bib extension to the filename. You should also use the `\bibliographystyle` command in your preamble to define the formatting style of your reference list. You'll need to process your document source with BIB_TE_X as normal.

`\addreferences`{*\langle .bib file name \rangle*}

`\usebibliography` The default header for the list of references is “References”. Some document styles prefer the header read “Bibliography” or “End Notes”. Use the commands `\userreferences`, `\usebibliography`, or `\useendnotes` anywhere before the end of the `document` environment.

`\userreferences`
`\useendnotes`

`\usebibliography`
`\userreferences`
`\useendnotes`

`\appendix` The book class `\appendix` command has been redefined to take an argument to specify the appendices. Use the `\chapter`, `\section`, etc commands as normal within the argument to `\appendix` as normal to create each appendix and sub-sections. You can call this command in the preamble or anywhere before closing the document with the `\end{document}`.

`\appendix`{*\langle All sectioned content for the appendix. \rangle*}

3 Class Options

There are a number of class options defined in addition to the default `book` class options. The default option `10pt` is applied but you can override this option using the `11pt` or `12pt` command, which is acceptable according to the current SGS policy. Most options appear in pairs which turn on or off various features. Most are complemented by a corresponding macro which can be used in the document preamble. These options and macros are described below, grouped by function. Options are indicated in the margin as default and opposite pairs as *default/option*.

final/draft

Switch between a final and draft versions of the document. Draft versions do not include some content (e.g. declaration) and figures, if using the `graphics`

package, will likely be marked using placeholders. The `draft` option will enable the `oneside` option, while the `final` option will enable the `twoside` option. Override this if you wish.

lof/nolof
`\includelistoffigures`
`\nolistoffigures`

Include a List of Figures. This list is generated by the use of `figure` floats as normally used in L^AT_EX.

nolop/lop
`\includelistofplates`
`\nolistofplates`

The use of plates (as opposed to figures or illustrations) is optional. If a List of Plates is requested, a new float environment `plate` is defined. Behaviour is similar to another float environment.

noloi/loi
`\includelistofillustrations`
`\nolistofillustrations`

The SGS formatting requirements specify the option of a List of Illustrations, although a List of Figures will likely suffice. A new `illustration` float environment is declared if this option is enabled.

lot/nolot
`\includelistoftables`
`\nolistoftables`

A List of Tables is generated based upon the use of the `table` environment. As tables are commonly used in theses, this option is enabled by default.

los/nolos
`\includenomenclature`
`\nonomenclature`

A List of Symbols is generated using the `nomenclature` package. As the SGS policy makes no reference to requirements for a nomenclature list, this list is inserted as the last item in the front matter. Nomenclatures are commonly used in math, science, and engineering theses. See the `nomenclature` package for available commands, but note that there is no need to issue the `\printnomenclature` command as it is handled automatically. You will need to do additional processing using the `makeindex` command.

loa/noloa
`\includelistofappendices`
`\nolistofappendices`

Typically, most documents which include an appendix list the appendices within the Table of Contents. SGS formatting policy indicates a separate List of Appendices. This switch is enabled by default, and any `\chapter` or lower sectioning will appear in a separate List of Appendices. You must use the `\appendix` command for the appendices to be numbered and inserted correctly. No List of Appendices will appear if you do not use the `\appendix` command.

glossary/noglossary
`\includeglossary`
`\noglossary`

Glossaries are supported using the `glossaries` package but are optional. You will need to do additional processing using the `makeglossaries` command to generate the glossary content. See the `glossaries` package for more details. Include glossary commands for identifying glossary items but do not issue the `\printglossary` command as this is handled automatically if glossaries are enabled. Acronyms can be defined in the glossary using the `\newacronym` command and will be listed separately within the glossary

index/noindex
`\includeindex`
`\noindex`

An optional index is supported using the `makeindex` command in the normal fashion. Indicate index items using the `\index` command but do not issue the `\printindex` command as this is handled automatically if indices enabled.

4 Implementation

This information is provided to document the source code of this class definition. It can be safely ignored by the casual user.

This class is derived from the book class, with a number of commands used to define the various sections of the document. The class is responsible for inserting the content in the correct order according to SGS policy. Thus the focus of this class is to provide a set of commands for defining the content of the sections, rather than provide environments which delimit the sections and expecting the user to use them in the correct order.

The class definition begins with the following package requirements.

```
1 % A minimal set of packages as required by the class
2 \RequirePackage{ifthen}
3 \RequirePackage{fancyhdr}
4 \RequirePackage{setspace}
5 % If using pdfpages, note that it does not appear to play
6 % well with vmargin and XeTeX (inserted pdfs are not
7 % anchored in the correct location).
8 \RequirePackage{vmargin}
```

The class defines a number of options for enabling and disabling certain features. Note that SGS policy requires a separate List of Appendices instead of including appendices within the Table of Contents. No requirement for nomenclature is specified, thus a List of Symbols is inserted after all other lists.

```
9 % The following commands are based upon SGS policy effective Sept. 2009
10 % Class options:
11 % Font size must 10 to 12 pt. Default will be 10pt, aka '10pt' option
12 %   Alternate options: '11pt','12pt'
13 %
14 % Papersize must be US letter size (8.5"x11"), ie always 'letterpaper' option
15 %
16 % Booleans for option switches, with default states below.
17 % These switches are modifiable by options to the class
18 % and by toggle commands
19 %
20 \newboolean{@ryedraft} \setboolean{@ryedraft}{false} % not draft == final
21 \newboolean{@ryelistoftables} \setboolean{@ryelistoftables}{true}
22 %
23 % The distinction between plates, illustrations and figures is subtle.
24 % SGS policy indicates separate lists for each. Only LoF is enabled by default.
25 %
26 \newboolean{@ryelistofplates} \setboolean{@ryelistofplates}{false}
27 \newboolean{@ryelistoffigures} \setboolean{@ryelistoffigures}{true}
28 \newboolean{@ryelistofillustrations} \setboolean{@ryelistofillustrations}{false}
29 %
30 % Ryerson SGS policy specifies that appendices should be listed
31 % in a separate list, and not within the ToC.
32 %
```

```

33 \newboolean{@ryelistofappendices} \setboolean{@ryelistofappendices}{true}
34 % As the List of Appendices overrides the |\addtocontents| command,
35 % hyperref is included by this class to avoid broken links when
36 % including the table of contents or list of appendices.
37 \newboolean{@ryehyperref} \setboolean{@ryehyperref}{true}
38 %
39 % Ryerson SGS policy does not specify anything about a list of
40 % symbols or nomenclature, however in engineering, math, and
41 % science, this is a common front matter feature. A List of Symbols
42 % is inserted after all the previous lists and toc.
43 %
44 \newboolean{@ryenomenclature} \setboolean{@ryenomenclature}{false}
45 % Glossaries and indices require extra processing. These are disabled by default as they are li
46 \newboolean{@ryeglossary} \setboolean{@ryeglossary}{false}
47 \newboolean{@ryeindex} \setboolean{@ryeindex}{false}
48 %
49 % This class is based upon the book class
50 \DeclareOption*{%
51 \PassOptionsToClass{\CurrentOption}{book}
52 }
53
54 % Class options to control what appears in the document
55
56 % Draft is equivalent to the book class sense of draft.
57 \DeclareOption{draft}{
58 \typeout{Ryerson-Thesis Class Option: 'draft'}
59 \ExecuteOptions{10pt,oneside}
60 \PassOptionsToClass{draft,oneside}{book}
61 \setboolean{@ryedraft}{true}
62 }
63
64 % Final is the opposite of draft. This is the default mode.
65 \DeclareOption{final}{
66 \typeout{Ryerson-Thesis Class Option: 'final'}
67 \ExecuteOptions{10pt,twoside}
68 \PassOptionsToClass{final,twoside}{book}
69 \setboolean{@ryedraft}{false}
70 }
71
72 % Include a list of figures (on by default).
73 \DeclareOption{lof}{
74 \typeout{Ryerson-Thesis Class Option: 'lof' Enabling List of Figures}
75 \setboolean{@ryelistoffigures}{true}
76 }
77
78 % Do not include a list of figures
79 \DeclareOption{no lof}{
80 \typeout{Ryerson-Thesis Class Option: 'no lof' Disabling List of Figures}
81 \setboolean{@ryelistoffigures}{false}
82 }

```

```

83
84 % Include a list of plates
85 \DeclareOption{lop}{
86     \typeout{Ryerson-Thesis Class Option: 'lop' Enabling List of Plates}
87     \setboolean{@ryelistofplates}{true}
88 }
89
90 % Do not include a list of plates
91 \DeclareOption{nop}{
92     \typeout{Ryerson-Thesis Class Option: 'nop' Disabling List of Plates}
93     \setboolean{@ryelistofplates}{false}
94 }
95
96 % Include a list of illustrations
97 \DeclareOption{loi}{
98     \typeout{Ryerson-Thesis Class Option: 'loi' Enabling List of Illustrations}
99     \setboolean{@ryelistofillustrations}{true}
100 }
101
102 % Do not include a list of illustrations
103 \DeclareOption{noloi}{
104     \typeout{Ryerson-Thesis Class Option: 'noloi' Disabling List of Illustrations}
105     \setboolean{@ryelistofillustrations}{false}
106 }
107
108 % Include a list of tables (on by default)
109 \DeclareOption{lot}{
110     \typeout{Ryerson-Thesis Class Option: 'lot' Enabling List of Tables}
111     \setboolean{@ryelistoftables}{true}
112 }
113
114 % Do not include a list of tables.
115 \DeclareOption{not}{
116     \typeout{Ryerson-Thesis Class Option: 'not' Disabling List of Tables}
117     \setboolean{@ryelistoftables}{false}
118 }
119
120 % Include a list of appendices (on by default)
121 \DeclareOption{loa}{
122     \typeout{Ryerson-Thesis Class Option: 'loa' Enabling List of Appendices}
123     \setboolean{@ryelistofappendices}{true}
124 }
125
126 % Disable the list of appendices. Appendices will appear in the ToC as is normal for the book c
127 \DeclareOption{noloa}{
128     \typeout{Ryerson-Thesis Class Option: 'noloa' Disabling List of Appendices}
129     \setboolean{@ryelistofappendices}{false}
130 }
131
132 % Do not include hyperref

```

```

133 \DeclareOption{nohyperref}{
134   \typeout{Ryerson-Thesis Class Option: 'nohyperref' Do not include hyperref}
135   \setboolean{@ryehyperref}{false}
136 }
137
138
139 % Include a list of symbols (i.e. a nomenclature). Requires additional processing of the document
140 \DeclareOption{los}{
141   \typeout{Ryerson-Thesis Class Option: 'los' Enabling Nomenclature}
142   \typeout{*****}
143   \typeout{}
144   \typeout{ Use: makeindex filename.nlo -s nomencl.ist -o filename.nls }
145   \typeout{       where filename is the root file name of the TeX source file.}
146   \typeout{}
147   \typeout{*****}
148   \setboolean{@ryenomenculture}{true}
149 }
150
151 % Disable the list of symbols.
152 \DeclareOption{nos}{
153   \typeout{Ryerson-Thesis Class Option: 'nos' Disabling Nomenclature}
154   \setboolean{@ryenomenculture}{false}
155 }
156
157 % Enable the glossary. Requires additional processing.
158 \DeclareOption{glossary}{
159   \typeout{Ryerson-Thesis Class Option: 'glossary' Enabling Glossary}
160   \typeout{*****}
161   \typeout{}
162   \typeout{ Use: makeglossaries filename }
163   \typeout{       where filename is the root file name of the TeX source file.}
164   \typeout{}
165   \typeout{*****}
166   \setboolean{@ryeglossary}{true}
167 }
168
169 % Do not include a glossary (the default).
170 \DeclareOption{noglossary}{
171   \typeout{Ryerson-Thesis Class Option: 'noglossary' Disabling Glossary}
172   \setboolean{@ryeglossary}{false}
173 }
174
175 % Include an index. Requires additional processing
176 \DeclareOption{index}{
177   \typeout{Ryerson-Thesis Class Option: 'index' Enabling Index}
178   \typeout{*****}
179   \typeout{}
180   \typeout{ Use: makeindex filename }
181   \typeout{       where filename is the root file name of the TeX source file.}
182   \typeout{}

```

```

183 \typeout{*****}
184 \setboolean{@ryeindex}{true}
185 }
186
187 % Do not include an index (the default).
188 \DeclareOption{noindex}{
189 \typeout{Ryerson-Thesis Class Option: 'noindex' Disabling Index}
190 \setboolean{@ryeindex}{false}
191 }
192
193 % Execute options, including specifying the required US letter paper size and default 10pt font
194 \ExecuteOptions{letterpaper,10pt}
195 \ProcessOptions\relax
196
197 % Load the base book document class.
198 \LoadClass{book}

```

Page size and margin as specified in the SGS policy, using the `vmargin` package.

```

199
200 % Always use 8.5"x11" paper.
201 \setpapersize{USletter}
202 % Set left, top, right, bottom margins
203 % An extra 0.25in added to left margin (right margin on even pages) to allow for binding.
204 \setmargrb{1.25in}{1in}{1in}{1in}

```

The book class commands `\frontmatter`, `\mainmatter`, and `\backmatter` are redefined, based upon SGS policy effective Sept. 2009. Each use the following page styles:

Front matter roman page numbering, plain page style (page number only)

Main matter arabic page numbering, fancy headers with alternating chapter and section

Back matter no format specified so keeping same style as main matter

`\cleardoublepage` Create a new page, set page style to empty (no footer or header), then issue a clear page if in `twoside` mode. Used before every ToC, list, or start of new chapter. This results in part (e.g. Table of Contents) starting on the right hand side (odd page number) in `twoside` mode.

```

205 % based upon clearemptydoublepage from page 92 of
206 % The LaTeX Companion, 1993.
207 \renewcommand{\cleardoublepage}{\newpage{\pagestyle{empty}}%
208 \clearpage\if@twoside \ifodd\c@page\else%
209 \hbox{} \newpage\if@twocolumn\hbox{} \newpage\fi\fi\fi}
210 % An internal clearpage command
211 \newcommand{\ryethesis@clearpage}
212 {\if@openright\cleardoublepage\else\clearpage\fi}

```

`\frontmatter` Inserts all front matter content. This function is called by the class at the beginning of the document and does not need to be called by the user.

```
213 \newif\if@ryethesismatchtoc \@ryethesismatchtocfalse
214 \renewcommand\frontmatter{%
215   \@mainmatterfalse
216   \@ryethesismatchtocfalse
217   \pagenumbering{roman}
218   \pagestyle{plain}
219   \maketitle
220   \ryethesis@insertdeclaration
221   \ryethesis@insertabstract
222   \ryethesis@insertacknowledgements
223   \ryethesis@insertdedication
224   \ryethesis@inserttoc
225   \ryethesis@insertlot
226   \ryethesis@insertlop
227   \ryethesis@insertlof
228   \ryethesis@insertloi
229   \ryethesis@insertloa
230   \ryethesis@insertnom
231   \ryethesis@clearpage
232   \pagenumbering{arabic}
233   \pagestyle{fancy}
234   % If the acronym feature is used with the glossary of terms, \gls
235   % commands for acronyms will be expanded on first use if used in the
236   % front matter (e.g. in the abstract). Reset this usage so that the
237   % first use of a \gls acronym is expanded in the main matter as well.
238   \ifthenelse{\boolean{@ryeglossary}}{\glsresetall}{}
239 }
```

`\mainmatter` Sets up page style of the main matter (i.e. the body) of the document. This function is called by the class after `\frontmatter` and does not need to be called by the end user.

```
240 \renewcommand\mainmatter{%
241   \@mainmattertrue
242   \pagenumbering{arabic}
243   \pagestyle{fancy}
244 }
```

`\backmatter` Insert the back matter, beginning with the appendices, if any. This function is called by the class at the end of the document and does not need to be called by the end user. This means that the appendices and bibliography must be defined in a similar way as the front matter content is defined.

```
245 \renewcommand\backmatter{%
246 % Redirect toc entries to toa if a List of Appendices is used
247 \ifthenelse{\boolean{@ryelistofappendices}}{\@ryethesismatchtoctrue}{\@ryethesismatchtocfalse}
248 \ryethesis@insertappendix
249 % Restore toc entries back to toc
250 \@ryethesismatchtocfalse
```

```

251 \ryethesis@insertreferences
252 \ryethesis@insertglossary
253 \ryethesis@insertindex
254 \@mainmatterfalse
255 }

```

The fancyhdr package is used to define the fancy page style for main and back matter.

```

256 \fancyhead{} % Clear all header fields
257 \fancyhead[LE,RO]{\slshape \rightmark}
258 \fancyhead[LO,RE]{\slshape \leftmark}
259 \fancyfoot{} % Clear all footer fields
260 \fancyfoot[C]{\thepage}

```

Global variables are defined to hold a variety of content. These variables are used by the various \ryethesis@insert commands that appear below as well as the redefined \titlepage command.

```

261
262 % Variables for storing degree, discipline, etc. Mostly related to the title page
263 % Some values are taken from those defined by the book class, namely \@title, \@author
264
265 % Initial values (most are blank)
266 \global\def\ryethesis@documentType{thesis} % Alternate forms include 'dissertation' or 'project'
267 \global\def\ryethesis@degree{}
268 \global\def\ryethesis@prevDegreeA{}
269 \global\def\ryethesis@prevDegreeB{}
270 \global\def\ryethesis@prevDegreeC{}
271 \global\def\ryethesis@prevDegreeD{}
272 \global\def\ryethesis@prevLocationA{}
273 \global\def\ryethesis@prevLocationB{}
274 \global\def\ryethesis@prevLocationC{}
275 \global\def\ryethesis@prevLocationD{}
276 \global\def\ryethesis@prevYearA{}
277 \global\def\ryethesis@prevYearB{}
278 \global\def\ryethesis@prevYearC{}
279 \global\def\ryethesis@prevYearD{}
280 \global\def\ryethesis@program{}
281 \global\def\ryethesis@degreeyear{}
282 \global\def\ryethesis@partnerUniv{}
283 \global\def\ryethesis@theabstract{}
284 \global\def\ryethesis@theacknowledgements{}
285 \global\def\ryethesis@thededication{}
286 \global\def\ryethesis@listofbibfiles{}
287 \global\def\ryethesis@theappendices{}

```

The following commands are used to define the above variable content.

```

\title Override the default behaviour of \title
288 \def\title#1{\gdef\@title{#1}\if@ryehyperref\hypersetup{pdftitle={#1}}\fi}
289 % \end{macrocode}

```

```

290 % \end{macro}
291
292 % \begin{macro}{\author}
293 % Override the default behaviour of |\author|
294 % \begin{macrocode}
295 \def\author#1{\gdef\@author{#1}\if@ryehyperref\hypersetup{pdfauthor={#1}}\fi}
296 % \end{macrocode}
297 % \end{macro}
298
299 % \begin{macro}{\documenttype}
300 % Specify the document type (e.g. thesis, dissertation, or project. Users may use this command
301 % \begin{macrocode}
302 \newcommand{\documenttype}[1]{\ifx\empty#1\else\gdef\ryethesis@documentType{#1}\fi}

```

\thesis Use the “thesis” document type. This affects the content of the title page. This command may have more features at a later time.

```
303 \newcommand{\thesis}{\documenttype{thesis}}
```

\dissertation Use the “dissertation” document type. This affects the content of the title page. This command may have more features at a later time.

```
304 \newcommand{\dissertation}{\documenttype{dissertation}}
```

\project Use the “project” document type. This affects the content of the title page. This command may have more features at a later time.

```
305 \newcommand{\project}{\documenttype{project}}
```

degree Specify the name of the degree (e.g. “Doctor of Philosophy” or “Masters of Applied Science”). This affects the content of the title and abstract page.

```
306 % Was \degree but changed to the more specific \degreeName to avoid
307 % conflict with other packages
308 \newcommand{\degreeName}[1]{\gdef\ryethesis@degree{#1}\if@ryehyperref\hypersetup{pdfsubject={#1}}
```

\degreeYear The official year of the degree. This affects the content of the title and abstract page.

```
309 \newcommand{\degreeYear}[1]{\gdef\ryethesis@degreeYear{#1}}
```

\program The program or department which is awarding the degree. This affects the content of the title and abstract page.

```
310 \newcommand{\program}[1]{\gdef\ryethesis@program{#1}}
```

\prevDegreeA Up to four previous degrees can be specified by **\prevDegreeA** through **\prevDegreeD**, typically used with the most recent degree as degree A. A complete degree definition is the name, location, and year. This affects the title and abstract pages.

```
311 \newcommand{\prevDegreeA}[3]{%
312 \gdef\ryethesis@prevDegreeA{#1}\gdef\ryethesis@prevLocationA{#2}\gdef\ryethesis@prevYearA{#3}}
313 \newcommand{\prevDegreeB}[3]{%
314 \gdef\ryethesis@prevDegreeB{#1}\gdef\ryethesis@prevLocationB{#2}\gdef\ryethesis@prevYearB{#3}}
315 \newcommand{\prevDegreeC}[3]{%
```

```

316 \gdef\ryethesis@prevDegreeC{#1}\gdef\ryethesis@prevLocationC{#2}\gdef\ryethesis@prevYearC{#3}
317 \newcommand{\prevDegreeD}[3]{%
318 \gdef\ryethesis@prevDegreeD{#1}\gdef\ryethesis@prevLocationD{#2}\gdef\ryethesis@prevYearD{#3}}

```

`\partnerUniversity` Specify the partner university awarding the degree, if any. This affects the title and abstract pages.

```

319 \newcommand{\partnerUniversity}[1]{\gdef\ryethesis@partnerUniv{#1}}

```

`\maketitle` A redefinition of the `\maketitle` command, structured according to SGS policy. Some fields, if empty are ignored.

```

320 \renewcommand{\maketitle}
321 {\begin{titlepage}
322 %% Set the line spacing to 1 for the title page.
323 \begin{spacing}{2}
324 \begin{large}
325 \begin{center}
326 \vfill
327 {\LARGE\textsc{@title}}\
328 \vfill%\vspace{2\baselineskip}
329 by \
330 \vfill%\vspace{\baselineskip}
331 {\@author}\
332 {\ifx\empty\ryethesis@prevDegreeA\else{\ryethesis@prevDegreeA, \ryethesis@prevLocationA,
333 {\ifx\empty\ryethesis@prevDegreeB\else{\ryethesis@prevDegreeB, \ryethesis@prevLocationB,
334 {\ifx\empty\ryethesis@prevDegreeC\else{\ryethesis@prevDegreeC, \ryethesis@prevLocationC,
335 {\ifx\empty\ryethesis@prevDegreeD\else{\ryethesis@prevDegreeD, \ryethesis@prevLocationD,
336 \vfill%\vspace{3\baselineskip}
337 {A \ryethesis@documentType}\
338 {presented to Ryerson University}}\
339 {\ifx\empty\ryethesis@partnerUniv\else{and \ryethesis@partnerUniv}}\fi}
340 \vspace{\baselineskip}
341 {in partial fulfillment of the}\
342 {requirements for the degree of}\
343 {\ryethesis@degree}\
344 {in the Program of}\
345 {\ryethesis@program}\
346 \vfill
347 {Toronto, Ontario, Canada, \ryethesis@degreeYear}\
348 {\copyright\@author~\ryethesis@degreeYear}\
349 \end{center}
350 \end{large}
351 \end{spacing}
352 \end{titlepage}
353
354 }

```

`\declaration` The `\declaration` is used to define the authors declaration of sole authorship and

`\ryethesis@insertdeclaration` Ryerson's right to reproduction and distribution of the document. Normally this will be inserted automatically by the `\ryethesis@insertdeclaration` command.

```

355 \newcommand{\declaration}{% Author declaration and release per SGS policy Sept. 2009.
356 \begin{flushleft}
357 I hereby declare that I am the sole author of this \ryethesis@documentType{.}\
358 \vspace{\baselineskip}
359 I authorize Ryerson University to lend this \ryethesis@documentType{} to other institutions of
360 \vspace{0.75in}
361 \hrule
362 \vspace{0.75in}
363 I further authorize Ryerson University to reproduce this \ryethesis@documentType{} by photocopying
364 \vspace{0.75in}
365 \hrule
366 \end{flushleft}
367 }
368 % If not in draft mode, insert the declaration on an new page.
369 \newcommand{\ryethesis@insertdeclaration}{%
370 \ifthenelse{\boolean{@ryedraft}}
371 {}
372 {\ryethesis@clearpage\declaration}
373 }

```

```

\abstract This code will insert a UMI/ProQuest compatible abstract, double spaced as re-
\ryethesis@insertabstract quired. The \abstract command is redefined to set the content of the abstract
variable \ryethesis@theabstract.
374 \newcommand{\abstract}[1]{\ifx\empty#1\else\gdef\ryethesis@theabstract{\begin{center}\section*{#1}\end{center}}\fi}
375 \newcommand{\ryethesis@insertabstract}{%
376 \ryethesis@clearpage
377 % A UMI/ProQuest compatible abstract
378 \begin{spacing}{2}
379 \begin{center}
380 \normalsize
381 \@title\\
382 \ryethesis@degree{} \ryethesis@degreeYear\\
383 \@author\\
384 \ryethesis@program\\
385 Ryerson University{\ifx\empty\ryethesis@partnerUniv\else{ and
386 \ryethesis@partnerUniv}\fi}\\
387 \end{center}
388 %\begin{minipage}{\textwidth}
389 {\ifx\empty\ryethesis@theabstract{\begin{center}\textit{Abstract goes here!}\end{center}}\else\
390 %\end{minipage}
391 \end{spacing}
392 }

```

```

\acknowledgements The acknowledgements and dedication pages are both optional, and defined by
\dedication the respective commands \acknowledgements and \dedication. Insertion of new
\ryethesis@insertacknowledgements pages for each, if not empty, is handled by the \ryethesis@insertacknowledgements
\ryethesis@insertdedication and \ryethesis@insertdedication commands. None of the \ryethesis@insert*
commands are intended to be called by the end user.

```

393

```

394 \newcommand{\acknowledgements}[1]{\ifx\empty#1\else\gdef\ryethesis@theacknowledgements{#1}\fi}
395
396 \newcommand{\ryethesis@insertacknowledgements}{%
397 \ifx\empty\ryethesis@theacknowledgements\else{
398 \ryethesis@clearpage
399 \begin{center}
400 \section*{Acknowledgements}
401 \end{center}
402 \ryethesis@theacknowledgements
403 }\fi}
404 }
405
406 \newcommand{\dedication}[1]{\ifx\empty#1\else\gdef\ryethesis@thededication{#1}\fi}
407
408 \newcommand{\ryethesis@insertdedication}{%
409 \ifx\empty\ryethesis@thededication\else{
410 \ryethesis@clearpage
411 \begin{center}
412 \section*{Dedication}
413 \end{center}
414 \ryethesis@thededication
415 }\fi}
416 }
417

```

```

\incluelistoftables The following \include* and \no* commands are intended to be called from the
\nolistoftables document preamble and toggle the same class options
\incluelistoffigures 418 \newcommand{\incluelistoftables}{\setboolean{@ryelistoftables}{true}}
\nolistoffigures 419 \newcommand{\nolistoftables}{\setboolean{@ryelistoftables}{false}}
\incluelistofplates 420 \newcommand{\incluelistoffigures}{\setboolean{@ryelistoffigures}{true}}
\nolistofplates 421 \newcommand{\nolistoffigures}{\setboolean{@ryelistoffigures}{false}}
\incluelistofillustrations 422 \newcommand{\incluelistofplates}{\setboolean{@ryelistofplates}{true}}
\nolistofillustrations 423 \newcommand{\nolistofplates}{\setboolean{@ryelistofplates}{false}}
\incluelistofappendices 424 \newcommand{\incluelistofillustrations}{\setboolean{@ryelistofillustrations}{true}}
\nolistofappendices 425 \newcommand{\nolistofillustrations}{\setboolean{@ryelistofillustrations}{false}}
\includenomenclature 426 \newcommand{\incluelistofappendices}{\setboolean{@ryelistofappendices}{true}}
\nomenclature 427 \newcommand{\nolistofappendices}{\setboolean{@ryelistofappendices}{false}}
\includeindex 428 \newcommand{\includenomenclature}{\setboolean{@ryenomenclature}{true}}
\noindex 429 \newcommand{\nonomenclature}{\setboolean{@ryenomenclature}{false}}
\includeglossary 430 \newcommand{\includeindex}{\setboolean{@ryeindex}{true}}
\noglossary 431 \newcommand{\noindex}{\setboolean{@ryeindex}{false}}
432 \newcommand{\includeglossary}{\setboolean{@ryeglossary}{true}}
433 \newcommand{\noglossary}{\setboolean{@ryeglossary}{false}}

```

A number of `\ryethesis@insert*` commands follow. Each command has a similar function, creating a new page with the necessary content (e.g. List of Figures, Table of Contents, etc). None of these commands are intended to be called by the end user.

```

434 \newcommand{\ryethesis@inserttoc}{

```

```

435 \ryethesis@clearpage
436 \tableofcontents
437 }
438
439 \newcommand{\ryethesis@insertlot}{
440 \ifthenelse{\boolean{@ryelistoftables}}{\ryethesis@clearpage\listoftables}{}
441 }
442
443 \ifthenelse{\boolean{@ryelistofplates}}
444 {\RequirePackage{float}\newfloat{plate}{h}{lop}}{}
445
446 \newcommand{\ryethesis@insertlop}{
447 \ifthenelse{\boolean{@ryelistofplates}}{\ryethesis@clearpage\listof{plate}{List of Plates}}{}
448 }
449
450 \newcommand{\ryethesis@insertlof}{
451 \ifthenelse{\boolean{@ryelistoftables}}{\ryethesis@clearpage\listoffigures}{}
452 }
453
454 \ifthenelse{\boolean{@ryelistofillustrations}}
455 {\RequirePackage{float}\newfloat{illustration}{h}{loi}}{}
456
457 \newcommand{\ryethesis@insertloi}{
458 \ifthenelse{\boolean{@ryelistofillustrations}}{\ryethesis@clearpage\listof{illustration}{List of
459 }
460
461 \ifthenelse{\boolean{@ryelistofappendices}}
462 {
463 \newcommand{\nohyphens}{\hyphenpenalty=10000\exhyphenpenalty=10000\relax}
464 \newcommand{\listofappendices}{\chapter*{List of Appendices}\starttoc{toa}}
465 }
466 {}
467
468 \newcommand{\ryethesis@insertloa}{%
469 \ifthenelse{\boolean{@ryelistofappendices}}{\ryethesis@clearpage\listofappendices}{}
470 }
471
472 \renewcommand{\appendix}[1]{\ifx\empty#1\else\gdef\ryethesis@theappendices{#1}\fi}
473
474 \newcommand{\ryethesis@insertappendix}{%
475 % If a list of appendices is requested, redirect the toc entries into a different file
476 \ifx\empty\ryethesis@theappendices\else{
477 \ryethesis@clearpage
478 \renewcommand{\thechapter}{\Alph{chapter}}
479 \renewcommand{\chaptername}{Appendix}
480 \setcounter{chapter}{0}
481 \ryethesis@theappendices
482 }\fi
483 }
484

```

```

485 % Insert hyperref package, if not disabled by class option
486 \if@ryehyperref
487 \RequirePackage[pageanchor,hyperindex]{hyperref}
488 \RequirePackage{bookmark}
489 \fi
490
491 \ifthenelse{\boolean{@ryeglossary}}
492 {\RequirePackage[acronym,toc]{glossaries}\makeglossaries%
493 %Glossaries prints a confusing warning
494 \global\let\warn@noprntglossary\relax
495 }{}
496
497 \ifthenelse{\boolean{@ryeindex}}
498 {
499 %\RequirePackage{index}\makeindex
500 \RequirePackage{makeidx}\makeindex
501 \RequirePackage{multicol}
502 \renewenvironment{theindex}
503     {\begin{multicols}{2}[\@makeschapterhead{\indexname}\addcontentsline{toc}{chapter}
504     \@mkboth{\MakeUppercase\indexname}%
505     {\MakeUppercase\indexname}]%
506     \thispagestyle{plain}\parindent\z@
507     \parskip\z@ \@plus .3\p@\relax
508     \columnseprule \z@
509     \columnsep 35\p@
510     \let\item\@idxitem}
511     {\end{multicols}\clearpage}
512 }
513 {}
514
515 \ifthenelse{\boolean{@ryenomenclature}}{%
516 \RequirePackage{nomenc1}
517 \renewcommand{\nomname}{List of Symbols}
518 \makenomenclature
519 }{}
520
521 \newcommand{\ryethesis@insertnom}{%
522 \ifthenelse{\boolean{@ryenomenclature}}{\ryethesis@clearpage\printnomenclature}{}
523 }
524
525 \newcommand{\ryethesis@insertreferences}{%
526 \ifx\empty\ryethesis@listofbibfiles
527 \else
528 \ryethesis@clearpage\bibliography{\ryethesis@listofbibfiles}
529 \addcontentsline{toc}{chapter}{\bibname}
530 \fi
531 }
532
533 \newcommand{\ryethesis@insertglossary}{%
534 \ifthenelse{\boolean{@ryeglossary}}

```

```

535 {\ryethesis@clearpage%
536 \printglossaries%glossaries.sty prints a false warning.
537 \global\let\warn@noprintglossary\relax%
538 }
539 {}
540 }
541
542 \newcommand{\ryethesis@insertindex}{%
543 \ifthenelse{\boolean{@ryeindex}}
544 {\ryethesis@clearpage%
545 \printindex
546 }
547 {}
548 }
549

```

\addtoreferences As the position of bibliographic data is now more tightly controlled, it is necessary to provide the user with a command for specifying the bib input files. Each call to **\addtoreferences** will append another bib input file to the list of files to load. The user can specify the bibliography style in the document preamble as is normal.

```

550 \newcommand{\addtoreferences}[1]{%
551 \ifx\empty\ryethesis@listofbibfiles\edef\ryethesis@listofbibfiles{#1}\else\edef\ryethesis@listof
552 }

```

\usebibliography **\userreferences** **\useendnotes** These commands provide the user with an easy way of altering the heading of the bibliographic data.

```

553 \newcommand{\usebibliography}{\renewcommand{\bibname}{Bibliography}}
554 \newcommand{\userreferences}{\renewcommand{\bibname}{References}}
555 \newcommand{\useendnotes}{\renewcommand{\bibname}{End Notes}}

```

556 %Adjust |\addtocontents| to switch from toc to toa file if using List
557 %of Appendices

```

558 \newcommand{\Saved@addtocontents}{}
559 \let\Saved@addtocontents\addtocontents
560 \def\addtocontents#1#2{%
561 \if@ryethesismatchtoc%
562 {\ifthenelse{equal{#1}{toc}}%
563 {\Saved@addtocontents{toa}{#2}}
564 {\Saved@addtocontents{#1}{#2}}}
565 \else
566 {\Saved@addtocontents{#1}{#2}}
567 \fi}
568 % \end{macrocode}
569

```

570 % Final commands to issue at the end of the class. In the case of draft mode, the line spacing

```

571 % \begin{macrocode}
572
573 \AtEndOfClass{
574 \ifthenelse{\boolean{@ryedraft}}

```

```
575 {% Draft mode uses double spacing
576 \doublespacing}
577 {% Final mode uses 1.5 spacing as specified in SGS policy Sept. 2009.
578 \onehalfspacing}
579 \userreferences
580 }
```

The `\AtBeginDocument` and `\AtEndDocument` are used to insert the front, main, and back matter in the correct place for the user. This tightly controls the order of appearance of each type of content.

```
581 % Insert front matter & mainmatter settings before user's material
582 \AtBeginDocument{
583 \frontmatter\mainmatter
584 }
585 % Insert back matter at the end
586 \AtEndDocument{\backmatter}
```