

# The `truthesis` Package

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## 1 The `truthesis` package

### 1.1 Introduction

This package provides a  $\LaTeX$  class file to help students typeset theses for submission to Thompson Rivers University. In making this package available I hope to help students craft visually appealing documents that conform to widely accepted standards of thesis presentation, but also to educate and encourage students in using structured-document preparation systems such as  $\LaTeX$ .

This document is not intended as an introduction to  $\LaTeX$ . However, even if you have never used  $\LaTeX$  before the file `truthesis_example.tex` provides a template that should get you started. The TRU library has many of the titles listed in the references at the end of this document.

### 1.2 Basic usage

The files `truthesis.cls` and `LogoHbwTRU.eps` (or `LogoHbwTRU.pdf` if you're using `pdflatex`) must reside in the same file system directory as your thesis. To use the `truthesis` package

you must load it using the `\documentclass` command in the document preamble:

```
\documentclass[...]{truthesis}
```

where [...] is a comma-separated list of document options (see Section 2).

Figure 1.2 outlines the structure of a typical thesis prepared using `truthesis`. This will produce a thesis containing an automatically generated title page and signature page, and the document formatting will conform (if all goes well) with TRU thesis regulations.

## 2 Document Options

The `truthesis` class is based on the standard  $\LaTeX$  `report` class, so any document options recognized by the `report` class can be used in the `\documentclass` command. For example,

```
\documentclass[11pt,letterpaper]{truthesis}
```

will produce your thesis in 11pt font formatted for letter-size (8.5" × 11") paper.

The following briefly describes the document options you are most likely to find relevant. See the  $\LaTeX$  documentation for a more complete description.

**letterpaper, legalpaper, a4paper** Size of the paper to format the thesis for. If you're in North America you probably want **letterpaper**, but beware that some components of a  $\LaTeX$  installation (`dvips` for one) are by default configured for A4 paper (the norm in many European countries). You might need to change these components' settings to get your thesis to print with the correct margins.

**10pt, 11pt, 12pt** Font size for normal text. Other typefaces (such as for chapter and section titles, footnotes, etc.) are scaled proportionally. Note that 10pt is generally considered too small for theses. 11pt is nice.

**oneside, twoside** Format the output for either one- or two-sided printing/copying. Using **twoside** primarily changes the format of the running header, so that the page number is always at the outside edge of the page.

**openright, openany** For two-sided presentation, controls whether new chapters always open on the right-facing (odd-numbered page) or simply on the next page. In the case of **openright**, blank pages may be inserted where necessary. If you're using **twoside** then you probably want **openright**.

**bindingmargin** Adds 0.3" to the inside margin, for binding. This leaves you with about 1" of functional margin after binding, as the binding uses up about 0.3". This option is provided by `truthesis`; it isn't a standard  $\LaTeX$  option. You can customize the binding margin by including a `\addtobindingmargin` command in your preamble (see Section 3).

```

\documentclass[11pt,letterpaper]{truthesis}

\title{Three Proofs of the Riemann Hypothesis}
\author{G.H.\ Wells}
\department{Department of Mathematics \& Statistics}
\degree{Bachelor of Science (Hons.)}
\date{14 Sept.\ 2007}
\examiner{William Shakespeare\\
          Dept.\ of Literature\\
          Thesis Supervisor}
\examiner{William Shatner\\ Dept.\ of Science Fiction}
\examiner{Daffy Duck\\ Dept.\ of String Theory}

\begin{document}
\frontmatter
\maketitle
\sigpage

\begin{abstract}
write your abstract here...
\end{abstract}

\tableofcontents
\mainmatter

write your thesis here...

\end{document}

```

Figure 1: Minimal example showing the structure of a typical thesis document formatted using the `truthesis` package.

## 3 Special Environments and Commands

The `truthesis` package provides a number of necessary and/or useful commands for typesetting TRU theses. A brief summary of these commands follows.

### 3.1 Thesis meta-data (author, title, etc.)

Some commands are used to gather information about the author/title/etc and can only be used in the document preamble:

<code>\author{...}</code>	author of the thesis
<code>\title{...}</code>	title of the thesis
<code>\department{...}</code>	department in which the thesis will be submitted
<code>\degree{...}</code>	name of the degree to be earned (e.g. B.Sc. (Hons.))
<code>\date{...}</code>	date of thesis completion
<code>\examiner{...}</code>	name and affiliation of exam committee member(s)

One `\examiner` command should be used for each exam committee member, if there is more than one.

### 3.2 Formatting

`\frontmatter`, `\mainmatter` The main body of the thesis (the so-called *main matter*) conventionally begins on page 1. Everything that comes before the main body (title page, abstract, table of contents, list of figures, etc.) is conventionally called *front matter* and has pages numbered with roman numerals (*i*, *ii*, *iii*, *iv*, etc.) These commands are used to switch between the two styles. Typically you should place a `\frontmatter` command immediately after `\begin{document}`, followed by all of your front matter, which should be followed by a `\mainmatter` command, then your main matter.

`\maketitle` Generates the title page, using the information provided in the document preamble by the commands `\author`, `\title`, etc.

`\sigpage` Generates the signature page on which the author grants copying privileges. This command should be placed immediately after `\maketitle`.

`\cleardoublepage` In the case of double-sided open-right formatting, you can use this command to force the current page to start on a right-facing (odd-numbered) page, inserting a blank page if necessary. Ordinarily you don't need this, as it is done automatically at the beginning of each chapter. However, you might need to use this command at the start of non-chapter elements like the bibliography, index, or list of notation, or between the `\tableofcontents` and `\listoffigures`.

`\addtobindingmargin{...}` Increases or decreases the extra margin provided for the thesis binding (the default is to add 0.3" to the inside margin if the `bindingmargin`

document option is given). So for example `\addtobindingmargin{-0.2in}` decreases the binding allowance to 0.1". This command should only be used in the document preamble.

`\begin{abstract}... \end{abstract}` Environment used to enclose the abstract. This causes the abstract to be listed in the table of contents, and formats the abstract centered vertically on the page.

`\begin{acknowledgements}... \end{acknowledgements}` Environment used to enclose the acknowledgements. This causes the acknowledgements to be listed in the table of contents, and formats the acknowledgements centered vertically on the page.

`\newPrepageEnvironment{myenv}{My Env}` Used to create a custom “prepage environment” like the abstract and acknowledgement environments described above. The first argument of the command defines the name of the new environment; the second argument provides the label to be used as a heading and in the table of contents. For example you could use the command `\newPrepageEnvironment{preface}{Preface}` to create a new `preface` environment. This allows you to do `\begin{preface}... \end{preface}`, which would format the enclosed text like the abstract and put a Preface entry in the table of contents. Note: the prepage environment assumes that a prepage will contain only one page of text; if your text spills onto a second page then the formatting gets messed up.

## References

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