

The `baththesis` package

Fran Burstall

1 Introduction

The presentation of higher degree theses at the University of Bath is governed by regulations which were last updated in 2004. This note describes a package `baththesis` which allows all dialects of \LaTeX to produce theses which conform to these regulations.

2 How to use it

`baththesis` is designed to be used with the `report` class. Thus it is loaded by

```
\documentclass{report}
\usepackage{baththesis}
```

Things are already set up for A4 paper so there is no need to use any option for setting the paper size but of course you can use whatever options and packages you like to set the point size, include PostScript graphics or whatever.

The regulations that govern the layout of the thesis are these:

The thesis should be bound to A4 size, using paper (ordinarily white) of weight 70 g/m² to 100 g/m². The margin on the binding edge should not be less than 40mm, and other margins should not be less than 15mm. Both sides of the paper may be used, subject to there being no ‘show through’.

and

The main text of the thesis should ordinarily be printed in black ink in a font of point size 11 or 12, and candidates should take care to use a legible font... Text may be spaced in either single or one-and-a-half spacing, with extra spaces between paragraphs. Full justification may be used but must not impair legibility.

Thus things are set up by `baththesis` to give you a format for single-sided printing: one-and-a-half line-spacing and a 40mm margin on the left. This means there is no need for you to adjust `\oddsidemargin` or `\baselinestretch` (although, if you want to decrease the line-spacing to single-spacing, put the command `\singlespacing` in the preamble). However, if you wish to print double-sided you should adjust `\evensidemargin` accordingly.

The page numbering is also governed by regulations to a certain extent:

All papers should be numbered, including introductory pages, appendices, reduced copies of computer print-outs, etc. A single sequence of arabic numerals should be used...

`baththesis` causes all pages to be numbered except the title page using the `plain` page-style. If you want fancy headers and footers (by using `fancyheadings`, say), you should bear this regulation in mind as well as the fact that, by default, there are no headers defined in `baththesis` and so you will have to set `\topmargin`, `\headheight` and `\headsep` yourself¹.

3 Front matter

There are also detailed regulations concerning the layout of the title page but these are taken care of by `\maketitle`. Of course, you must provide some information and put something like this in the preamble:

```
\title{Nonlinear Functional Analysis\\and Harmonic Maps}
\author{Francis Burstall}
\degree{Doctor of Philosophy}
\department{Department of Mathematical Sciences}
\degreemonthyear{October 1984}
```

Note the use of `\\` to get a new line in the title.

If you are simultaneously submitting a thesis for two degrees at once (I cannot imagine a circumstance in which this would be likely), separate the degrees with `\and` thusly:

```
\degree{Doctor of Philosophy \and Medical Doctor}
```

The regulations demand that a certificate appear at the bottom of the title page describing any restrictions on the availability of the thesis to other libraries. If, as is usually the case, there are no such restrictions, put

```
\norestrictions
```

in the preamble. If, however, you do need to restrict circulation, put something like

```
\restrictions{three}
```

where the argument is the number of years that the restriction is to be in force.

Finally, put `\maketitle` just after the `\begin{document}` to create the title-page.

You are now almost finished with the requirements of the regulations except for

1 (iv). The thesis must include a bound-in summary (abstract) of the work, not exceeding 300 word in length. An additional loose copy of the summary is required for Library purposes.

For this, use the `abstract` environment just after `\maketitle`.

¹If you do this, make sure you maintain at least a 15mm margin and the top and bottom of the page!

4 An example

As usual, an example is worth a thousand manual pages, so here is how a thesis might start:

```
\documentclass[11pt]{report}
% packages
\usepackage{baththesis}
\usepackage{amssymb}      %for Blackboard bold etc
\usepackage{graphicx}     %for including eps graphics
% front matter
\title{Nonlinear Functional Analysis\\and Harmonic Maps}
\author{Francis Burstall}
\degree{Doctor of Philosophy}
\department{Department of Mathematical Sciences}
\degreemonthyear{October 1984}
\norestrictions

\begin{document}
\maketitle
\begin{abstract}
In this thesis numerous seminal results are proved which will
decisively shape the future development of the subject.
\end{abstract}

\chapter{Introduction}

The real work starts here...
```