Example Masters Thesis. With a long title to test the wrapping of the box

Simon McCallum

Master's Thesis
Master of Applied Computer Science
30 ECTS
Department of Computer Science and Media Technology
Gjøvik University College,

Avdeling for
informatikk og medieteknikk
Høgskolen i Gjøvik
Postboks 191
2802 Gjøvik

Department of Computer Science
and Media Technology
Gjøvik University College
Box 191
N-2802 Gjøvik
Norway

Example Masters Thesis. With a long title to test the wrapping of the box

Simon McCallum

2012/07/15

Abstract

This document provides an example on how to use the `gucthesis` LaTeX class that has been developed in order to fulfil the typographical requirements for the master's and bachelor's thesis at Gjøvik University College.

Preface

I would like to thank Erik Hjelmås for encouraging me to write this small LaTeX class for GUC's master's theses ...

Contents

List of Figures

List of Tables

1 Introduction

Starting in 2005, Gjøvik University College(GUC) was given the right to issue Master degrees. As a consequence of this, directions for the master's thesis have been developed [1], including guidelines for the typographical details. These detailed typographical rules have been implemented in the `gucthesis` LaTeX document class.

The purpose of this document is to provide an example and description on how this class file can be used.

This was then extended to include bachelor project by Simon McCallum. The package has changed names and version number it is now called `gucthesis` v1.02 as of 2012/07/15.

2 Packages

The `gucthesis` is built upon the standard LaTeX `report` class. All commands from the `report` class can be used, with the two exceptions of `\subsubsection` and `\paragraph`. This is because there should only be three levels of headings according to the guidelines [1].

2.1 Packages Used by gucthesis

In addition to the `report` document class, `gucthesis` makes direct use of the following packages that must hence be present:

geometry: used for setting the sizes of the margins and headers.

fontenc: used with option `T1` for forcing the Cork font encoding (necessary for the Charter font).

charter: load Charter as the default font.

euler: load the Euler math fonts.

bable: for language handling.

2.2 Other Relevant Packages

The author of a thesis might want to use a bunch of different packages to those described in Section 2.1 in order to have all features needed for their document. In particular, it is advised to use the following:

inputenc: to allow LaTeX to use more than 7-bit ASCII for its input. Most often, the option `latin1` will do.

babel: to load language specific strings. Reasonable options include `british`, `american`, `norsk` and `nynorsk`.

graphicx: to include graphics.

hyperref: this is a very nice package that makes cross links in pdf documents. Use with option `dvips` or `pdftex` in accordance with the driver that you use. Unfortunately, hyperref is not completely bugfree...

3 Structural Elements

The title of the thesis should be set using the `\thesistitle` command, and the date of the thesis should be set using the `\thesisdate` command. This makes the title and date appear in the running header, like in this document.

3.1 Page Layout

The geometry of the page has been set using the `\geometry` command.

3.2 Fonts

Due to limited LaTeX support for the Georgia font, Charter has been chosen instead. For mathematical formula, the Euler fonts are used, since they blend more nicely with the Charter than the standard LaTeX fonts:

$$f(x) = \int_0^x g(\tau)\,d\tau$$

For inline math you can use `\(` and `\)` for example $f(x) = \frac{x^2}{1+x^2}$. This also allows you to use `/` and `\`. You need to include the `{}` when you want the special character to have other letters immediately after it.

3.3 Sectioning Commands

The standard LaTeX sectioning commands are used for both numbered and unnumbered sections. The top level is given by the `\chapter` command. This starts a new right page. The two lower levels are obtained using the `\section` and `\subsection` commands. The standard LaTeX `\subsubsection` and `\paragraph` commands have been disabled since their use is not encouraged by the thesis guidelines. When you use these they will not be given numbers. They still appear in the document with highlighting but not in the table of contents.

3.3.1 The subsection

This is an example of a subsection.

The subsubsection

This is an example of a subsubsection.

The paragraph

This is an example of a paragraph with a heading.

3.4 Floats (Figures and Tables)

Figures are placed in the `figure` environment. An example is shown in Figure 1. Tables are placed in the `table` environment. An example is given in Table 1. Figures and tables float freely around in the document in accordance with standard LaTeX behavior.

Figure 1: An example figure. If the caption is shorter than one line, it is centered. If it goes over more than one line, it is left and right justified. Furthermore, it is suggested that an alternative short caption is given in order to produce a good list of figures.

Age	IQ
10	100
20	100
30	150
40	100
50	100

Table 1: An example table.

The captions are placed *below* both for the figures and the tables. The caption is set in 9pt. If the caption is shorter than one line, it is centered.

3.5 Quotes

Quotes are inserted using the standard LaTeX `quote` environment. The environment has been changed so that a 9pt font is used:

> "And I looked, and, behold, a whirlwind came out of the north, a great cloud, and a fire infolding itself, and a brightness was about it, and out of the midst thereof as the colour of amber, out of the midst of the fire. Also out of the midst thereof came the likeness of four living creatures."

3.6 Lists

Point lists and enumerated lists are made by using the standard `itemize` and `enumerate` environments, respectively. The spacing is going to be changed in accordance with the specification. For `itemize`, the results look like this:

- First item.
- Second item. Here I will put some long text, just to illustrate. Here I will put some long text, just to illustrate. Here I will put some long text, just to illustrate. Here I will put some long text, just to illustrate.
- Third item also has subitems:
  - First subitem.
  - Second subitem.
  - Third subitem.

and for `enumerate` like this:

1. First item.
2. Second item. Here I will put some long text, just to illustrate. Here I will put some long text, just to illustrate. Here I will put some long text, just to illustrate. Here I will put some long text, just to illustrate.
3. Third item also has subitems:
   1. First subitem.
   2. Second subitem.
   3. Third subitem.

   You may also want to use descriptive lists

First the first item.

Second the second item. Here I will put some long text, just to illustrate. Here I will put some long text, just to illustrate. Here I will put some long text, just to illustrate. Here I will put some long text, just to illustrate.

What now the third item also has subitems:

1. First subitem.
2. Second subitem.
3. Third subitem.

3.7 Bibliographic References

You should cite articles [2], books [3], anthologies [4] and web publications [5] like this. There is always an issue referencing web pages. Currently we suggest that you use the HiG Website [6].

A particular bibliography style file for GUC named `gucthesis.bst` has been developed based upon the standard BibTEX `unsrt` style.

Bibliography

[1] Directions for the master's thesis at the Department of Computer Science and Media Technology, Gjøvik University College. http://www.hig.no/imt/. (Visited Mar. 2012).

[2] Askvall, S. 1985. Computer supported reading vs. reading text on paper: A comparison of two reading situations. *International Journal on Man-Machine Studies*, 4(22), 425–439.

[3] Card, S. K., Moran, T. P., & Newell, A. 1983. *The psychology of human-computer interaction*. Erlbaum.

[4] Lancaster, F. W. & Warner, A. 1985. Electronic publication and its impact on the presentation of information. In *The technology of text: Principles for structuring, designing, and displaying text*, Jonassen, D. H., ed, 292–309. Educational Technology Publications.

[5] Meldon, W. 1997. Reading from the web. `http://www.mit.edu/compsci/humanfactors/report9734.html`. (Visited Nov. 2010).

[6] HiG. 2010. Hig website. `http://www.hig.no`. (Visited Jan. 2012).