The Source

by

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A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

B.SC. COMPUTER SCIENCE HONOURS

in

Computer Science

(in Physics)

THE UNIVERSITY OF BRITISH COLUMBIA

(Okanagan)

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Abstract

This is a sample thesis based on the `ubcthesis.cls` template from Michael Forbes. The thesis includes the additional style file `ubcostyle.sty` in accordance to the official standards for the UBCO College of Graduate Studies. This sample thesis together with the style files and templates produces a document that is officially accepted by the UBCO College of Graduate Studies.

If you need a package, look into ubcostyle.sty to see if it is not already loaded there. See the file README.txt for additional instructions to produce the bibliography, index, and glossary automatically.

Preface

Preface stuff

If any part of your thesis was co-written, you must include a Co-Authorship statement. Also indicate if part of the thesis was published with the reference.

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Acknowledgements

This is the place to thank professional colleagues and people who have given you the most help during the course of your graduate work.

Dedication

The dedication is usually quite short, and is a personal rather than an academic recognition. The *Dedication* does not have to be titled, but it must appear in the table of contents. If you want to skip the chapter title but still enter it into the Table of Contents, use this command `\chapter[Dedication]{}`.

Chapter 1

Introduction

This sample thesis with UBCO College of Graduate Studies standards. If you need more information about the template and LaTeX, please check out the sample thesis of Michael Forbes at

Chapter 2

Sample Content Using Mathematical Notations

2.1 Facts and theorems

If we use a well established fact or theorem

Fact 2.1. *[HUL93, Theorem IV.2.4.2] Define the* marginal function γ *associated with* $g : \mathbb{R}^n \times \mathbb{R}^m \to \mathbb{R} \cup \{+\infty\}$ *by* $z \mapsto \gamma(z) := \inf_x g(x, z)$*. If* g *is a proper convex function and is bounded below on the set* $\mathbb{R}^n \times \{z\}$ *for all* z*, then* γ *is convex.*

2.2 Propositions and lemmas

Here is a lemma followed by its proof.

$$D = \left\{ (x, \lambda) \in \mathbb{R}^d \times \mathbb{R}^+ : \frac{x}{\lambda} \in C \right\}.$$

Lemma 2.2. *Assume* C *is a nonempty closed convex set. Then the set* D *is a nonempty closed convex cone.*

Proof. The fact that D is nonempty and closed follows from C being nonempty and closed. One can check directly that D is a cone....

Hence D is convex. □

Make sure that the qed symbol is always on the last line of the proof. If the last line is an equation, you can enforce the qed on the same line with the `qedhere` command.

For citations, please use BibTex. A sample article to verify formatting and style is [BGLW08]. Use the bibliography style `ubco`, which is basic `alphaurl` style with inline links enabled. Please compile multiple times when generating the references. The last entry in a reference are the back references to the pages with the citation. They need an additional compilation, once the bibtex entries are generated.

Note that the bibliography style is discipline dependent so feel free to use the style adopted by your discipline, for example siam for mathematics.

Chapter 3

Landscape Mode

The landscape mode allows you to rotate a page through 90 degrees. It is generally not a good idea to make the chapter heading landscape, but it can be useful for long tables etc.

This text should appear rotated, allowing for formatting of very wide tables etc. Note that this might only work after you convert the `dvi` file to a postscript (`ps`) or `pdf` file using `dvips` or `dvipdf` etc.

Chapter 4

Conclusion

Here comes the conclusion.

Table 4.1: A publication quality table. Very very very very very very very very very very long title.

Item		
Animal	Description	Price ($)
Gnat	per gram	13.65
	each	0.01
Gnu	stuffed	92.50
Emu	stuffed	33.33
Armadillo	frozen	8.99

Your conclusion can go on for several pages.

Bibliography

[BGLW08] Heinz H. Bauschke, Rafal Goebel, Yves Lucet, and Xianfu Wang. The proximal average: Basic theory. *SIAM J. Optim.*, 19(2):768–785, 2008. → pages 2

[Fea05] Simon Fear. Publication quality tables in LaTeX [online]. 2005 [cited April 18, 2010]. → pages 10

[HUL93] Jean-Baptiste Hiriart-Urruty and Claude Lemaréchal. *Convex Analysis and Minimization Algorithms*, volume 305–306 of *Grundlehren der Mathematischen Wissenschaften*. Springer-Verlag, Berlin, 1993. → pages 2

Appendix

Appendix A

Tables

Here you can have additional tables. Table captions are always on top.

In order to use publication quality tables, one should use the guidelines in [Fea05]. In short, do not use vertical rules or double rules, units in the column heading (not in the body of the table), precede decimals with a digit, and do not use ditto signs. Table A.1 is according to the guidelines.

For tables, the caption goes on top, for figures, the caption goes on the bottom. If possible, always position tables and figures at the top of a page.[1] Use the option `tbph` for the placement.

Table A.1: A publication quality table. Very very very very very very very very very very long title.

Item		
Animal	Description	Price ($)
Gnat	per gram	13.65
	each	0.01
Gnu	stuffed	92.50
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[1] In this case, the chapter heading prevents the table from being at the top.

Table A.2: Another table

Table A.3: Another table

And other table materials (I needed to generate two pages for that appendix to test the formatting of the table of content).

Table A.4: Another table

Table A.5: Another table

Table A.6: Another table

Table A.7: Another table

Table A.8: Another table

Table A.9: Another table

Table A.10: Another table

Table A.11: Another table

Appendix B

Figures

Here you can have additional figures. Figure captions are always at the bottom.

And other additional figures (again I needed to generate two pages :-).