A Sample UBC Thesis

With a Subtitle

by

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A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
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Abstract

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Preface

You must include a preface if any part of your research was partly or wholly published in articles, was part of a collaboration, or required the approval of UBC Research Ethics Boards.

The Preface must include the following:

- A statement indicating the relative contributions of all collaborators and co-authors of publications (if any), emphasizing details of your contribution, and stating the proportion of research and writing conducted by you.
- A list of any publications arising from work presented in the dissertation, and the chapter(s) in which the work is located.
- The name of the particular UBC Research Ethics Board, and the Certificate Number(s) of the Ethics Certificate(s) obtained, if ethics approval was required for the research.

Examples

Chapter **??** is based on work conducted in UBC's Maple Syrup Laboratory by Dr. A. Apple, Professor B. Boat, and Michael McNeil Forbes. I was responsible for tapping the trees in forests X and Z, conducted and supervised all boiling operations, and performed frequent quality control tests on the product.

A version of chapter **??** has been published [**?**]. I conducted all the testing and wrote most of the manuscript. The section on "Testing Implements" was originally drafted by Boat, B. Check the first pages of this chapter to see footnotes with similar information.

Note that this preface must come before the table of contents. Note also that this section "Examples" should not be listed in the table of contents, so we have used the starred form: `\section*{Example}`.

Table of Contents

List of Tables

List of Figures

List of Programs

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]{}`.

Note that this section is the last of the preliminary pages (with lowercase Roman numeral page numbers). It must be placed *before* the `\mainmatter` command. After that, Arabic numbered pages will begin.

Chapter 1

This is a Chapter

1.1 A Section

Here is a section with some text. Equations look like this $y = x$.[1]

This is an example of a second paragraph in a section so you can see how much it is indented by.

1.1.1 This is a Subsection

Here is an example of a citation: [**?**]. The actual form of the citation is governed by the bibliographystyle. These citations are maintained in a BIBTeX file `sample.bib`. You could type these directly into the file. For an example of the format to use look at the file `ubcsample.bbl` after you compile this file.[2]

This is an example of a second paragraph in a subsection so you can see how much it is indented by.

This is a Subsubsection

Here are some more citations [**?** **?** **?**]. If you use the `natbib` package with the `sort&compress` option, then the following citation will look the same as the first citation in this section: [**?** **?** **?**].

This is an example of a second paragraph in a subsubsection so you can see how much it is indented by.

This is a Paragraph Paragraphs and subparagraphs are the smallest units of text. There is no subsubsubsection etc.

This is a Subparagraph This is the last level of organisation. If you need more than this, you should consider reorganizing your work...

[1] Here is a footnote.

[2] Here is another footnote.

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Table 1.1: Here is the caption for this wonderful table. It has not been centered and the positioning has been specified to be at the top of the page. Thus it appears above the babble rather than below where it is defined in the source file.

$$\mathrm{f}(x) = \int_{-\infty}^{\int_{-\infty}^{x} e^{-\frac{y^2}{2}} \mathrm{d}y} e^{-z^2} \mathrm{d}z \tag{1.1}$$

In order to show you what a separate page would look like (i.e. without a chapter heading) I must type some more text. Thus I will babble a bit and keep babbling for at least one more page. . . What you should notice is that the chapter titles appear substantially lower than the continuing text. Babble babble.

Babble babble.

1.2 Quote

Here is a quote:

> This is a small poem,
> a little poem, a Haiku,
> to show you how to.
> —Michael M^{c}Neil Forbes.

This small poem shows several features:

- The use of the `quote` and `center` environments.
- The `\newpage` command has been used to force a page break. (Sections do not usually start on a new page.)
- The pagestyle has been set to suppress the headers using the command `\thispagestyle{plain}`. Note that using `\pagestyle{plain}` would have affected all of the subsequent pages.

1.3 Programs

Here we give an example of a new float as defined using the `float` package. In the preamble we have used the commands

```
\floatstyle{ruled}
\newfloat{Program}{htbp}{lop}[chapter]
```

This creates a "Program" environment that may be used for program fragments. A sample `python` program is shown in Program **??**. (Note that Python places a fairly restrictive limit on recursion so trying to call this with a large n before building up the cache is likely to fail unless you increase the recursion depth.) Instead of using a `verbatim` environment for your program chunks, you might like to `include` them within an `alltt` envrironment by including the `\usepackage{alltt}` package (see page 187 of the LaTeX book). Another useful package is the `\usepackage{listings}` which can pretty-print many different types of source code.

Program 1.1 Python program that computes the n^{th} Fibonacci number using memoization.

```
def fib(n,_cache={}):
    if n < 2:
        return 1
    if n in _cache:
        return _cache[n]
    else:
        result = fib(n-1)+fib(n-2)
        _cache[n] = result
        return result
```