



THESIS TITLE

MARCUS NIGEL CAMPBELL BANNERMAN
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THE MENG. DEGREE IN ENGINEERING.

ABSTRACT

This is a short summary of my work...

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Final word count: 542

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NOMENCLATURE

Acronyms/Terminology

MD Molecular Dynamics, 9

Variables/Constants

α Alpha, 9

ACKNOWLEDGEMENTS

I would like to dedicate this work to..

INTRODUCTION

Welcome to a latex thesis style for engineering students working on their honours project. I'll illustrate how to perform certain cool features of this thesis in the following text.

First thing to note. In order for things such as the table of contents, references, word count and nomenclature to work, you need to use my `makethesis.sh` script to make the thesis.

The second thing to note is that to start a new paragraph, I just leave at least one blank line in the text!

1.1 Numbering of Sections, Tables, and Equations

The first major benefit of Latex is that everything is numbered automatically. You don't have to generate a table of contents, figures, references or even a nomenclature! This is all handled automatically.

1.2 Mathematical Expressions

An excellent feature of latex is its support for math. For example, we can create an equation like so

$$y = mx + c \tag{1.2.1}$$

Notice how the equation is nicely formatted and numbered? We can even automatically refer to the equation number. First, when we make the equation we have to give it a label like so

$$a = \int c(x)dx \tag{1.2.2}$$

Then, in the text we can refer to it just by typing Eq. 1.2.2! We can put labels anywhere, in figures, tables, chapters wherever, and use the `ref` command to refer to them. For instance,

this section is Sec. 1.2. Notice the label just after the section command above?

We can also write math inline. So for example I might say, our first function is $y = mx + c$. This is the same function as above, but printed in-line.

1.3 Adding Figures

To add figures to your text, you need to use a series of commands, but you can just copy paste the one below and tweak it for your needs.

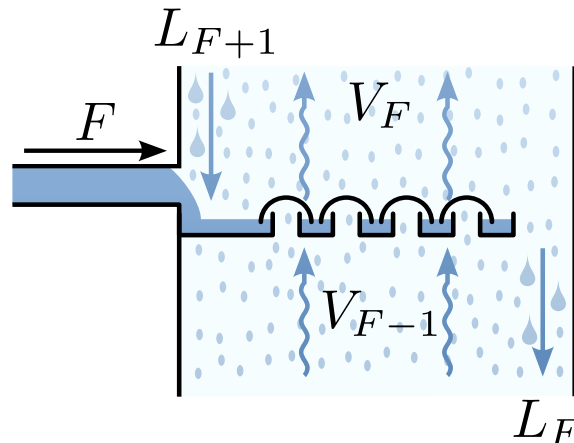


Figure 1.1: A test figure.

I can refer to this figure (Fig. 1.1) using the ref command again, provided I've placed a label in the caption. But notice how I don't get to choose where it is placed? I can only give hints, via the [htp] option (which means either place it [H]ere, at the [T]op of the page, or a whole [P]age). Latex is free to place it where it thinks best.

1.4 Formatting Text

You can format text in latex, but **please use it sparingly!**. The results *aren't always pleasant*.

1.5 Using a Nomenclature

To use a nomenclature you must add extra commands throughout your text whenever you define a new term. For example, a handy acronym is MD .

The nomenclature command has 3 arguments. The last argument is the description of the symbol/acronym. The second argument is the symbol/acronym. The first is the type of entry it is (A=acronyms, O=operator, V=Variables/Constants, S=Notation, and F is functions), followed by a space then the alphabetical version of the term. For example, if I wanted to define a greek symbol such as α , I would need to write alpha here.

1.6 References

You can reference entries in your bib file using the key you have set for it like so [1]. I can even do cool things like say the author of that citation is Bannerman and it was published in 2009. Or even ask for a full citation, like so: M. N. Bannerman. “Discrete potentials are good”. In: *J. M. B.* 1 (2009), pp. 1–100.

But you must remember to print the bibliography at the end of every chapter!

1.7 References

[1] M. N. Bannerman. “Discrete potentials are good”. In: *J. M. B.* 1 (2009), pp. 1–100.