

# Introduction to L<sup>A</sup>T<sub>E</sub>X

ECE 481 — Tuesday, 12:30 — K. Passino (instructor)

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July 15, 2009

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## Introduction

This document has some appendices. For example, [Appendix A](#) is a glossary, and [Appendix B](#) gives some parts, and [Appendix C](#) has some other things.

## Some Subsections

We can have lower-level sections and subsections and subsubsections and paragraphs...

## Some Math

Some in-line math might like like  $x_0 = 5$ , while an unnumbered and displayed equation could look like

$$\sin(T) = \int_0^T \cos(t) dt.$$

If we want to refer to an equation later, we better number it, like

$$\exp(it) \triangleq e^{it} = \cos(t) + i \sin(t) \tag{1}$$

and

$$\Re(e^{it}) = \cos(t). \tag{2}$$

Of course, giving both Equations [\(1\)](#) and [\(2\)](#) is silly because [Equation \(2\)](#) is obvious from [Equation \(1\)](#).

## Some Figures

I might also want to include figures, like [Figure 1](#).

A picture could be here.

Figure 1: Some figure.

## More Information

We can refer to [Figure 1](#) from anywhere in the document. In fact, we can still refer to [Equation \(1\)](#), and each of these references is hyperlinked to the appropriate target within the document.

## Conclusions

We put some conclusions here.

## A Glossary

**ethics** motivation based on ideas of right and wrong

**mores** conventions that embody the fundamental values of a group

## B Data

Check out [Table B.1](#).

Frequency	Gain	Phase Shift
5 Hz	5	$-10^\circ$
15 Hz	5	$-15^\circ$
1 kHz	0.5	$-90^\circ$

Table B.1: Some data

Notice how [Table B.1](#) has a number that includes the appendix. When we turn on numbering this way, the numbers reset to 1 each time we enter a new appendix.

### B.1 Section in Appendix

Of course, we can divide up each appendix as well.

#### B.1.1 And more

We can have deeper divisions too.

## C Other Things

We might find extra equations here, like

$$x_0 = \frac{-b + \sqrt{b^2 - 4ac}}{2a} \quad \text{and} \quad x_1 = \frac{-b - \sqrt{b^2 - 4ac}}{2a}. \quad (\text{C.1})$$