SFWR ENG 3DX4 Summary

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Course: SFWR ENG 3DX4

*Math objects made using* [*MathType*](http://www.dessci.com/en/products/mathtype/)*; graphs made using* [*Winplot*](http://math.exeter.edu/rparris/winplot.html)*.*

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Note: refer to [my previous summary](https://drive.google.com/open?id=0BxW61uJyyN8TTWx5d0gzQW9ZUzQ&authuser=0). I may review to clarify or correct, but mostly I will omit those things.

# Introduction to Systems

Systems can be represented by **block diagrams** to make it easier to marginalize the different parts of the systems.

# Laplace

Useful for…

Time begins when your signal begins



Initial conditions:

* *c*(0)

**Time domain** (*t*): variables are lower case, e.g. *f* (*t*)

**Frequency domain** (*s*): variables are upper case, e.g. *F* (*s*)

**Transfer function**:

When doing the inverse Laplace, it’s useful to break your fractions up so that you can

**Strictly Stable**: it will eventually get back to the initial position

**Marginally Stable**:

**Unstable**: it will progressively get worse

