

Differential Equations Module – Chapter 1

Using the computers in MEC 408 (or your own software package of Mathematica), use Mathematica to work through:

- From “*Chapter 1: An Introduction to Differential Equations*” in the book “A Mathematica Companion for Differential Equations” by Selwyn Hollis (Prentice Hall, 2003), [ISBN: 0-13-046329-9] provided in class.
 - Do the examples in Chapter 1.1 *Verifying Solutions*.
 - Do the examples in Chapter 1.2 *Using DSolve*.
 - Do the examples in Chapter 1.3 *Plotting Solutions*.
 - Do the examples in Chapter 1.4 *Solutions by Integration*.
 - Do the examples in Chapter 1.5 *Using NDSolve*.
 - Do the examples in Chapter 1.6 *Implicit Solutions*.

Please use a Style Sheet and Styles to thoroughly document your Mathematica programs.

Worth 3 to 5 points towards the next Problem Set. Depends on the grader.