

AMATH 351, Summer 2014
MWF 1:10 - 2:10, CMU 226
University of Washington

Instructor:
Lowell Thompson
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Office Hours:
Lewis 128
W 2:30-3:30, Th 3:00-4:00

Course Description

This is an introductory survey of ordinary differential equations. We will cover first and second order linear and nonlinear differential equations as well as systems of linear equations. We will also cover more general methods of solution, including qualitative analysis, series solutions and Laplace transforms.

Course Information

All of the information for this course is available at <http://students.washington.edu/lfthomps/351sum2014.html>.

Rather than using a textbook, we will be loosely following two sets of course notes by Bernard Deconinck and Nathan Kutz. I will also post my own lecture notes as we go. If you really feel the need to buy a textbook, the standard reference is *Elementary Differential Equations and Boundary Value Problems* by William E. Boyce and Richard C. DiPrima.

The prerequisites for this course are MATH 124 and 125 (or their equivalent). You will be expected to be proficient in algebra, differentiation and integration. Any other necessary skills will be taught in the class.

Grades

Homework: 50% Assignments will be due every Friday at the beginning of class (1:10) unless otherwise stated.

Midterm: 20% The midterm exam is tentatively scheduled for July 16, 2014 (Wednesday). It will cover everything we have discussed up until the previous Friday.

Final: 30% The final exam will be held on August 22, 2014 (Friday). It will be cumulative.

Final Project: 5% e.c. There will also be a final project worth up to five points of extra credit. It is designed to be a challenge.

Homework Policy

No late homework will be accepted. Solutions will be posted on the day the homework is due. You are encouraged to work with other students on these assignments, but each student must write up their own solution. In addition, the presentation of your homework will be reflected in your score, so make sure that it is neat and readable and has your name and the assignment number at the top.

Exam Policy

Exams will be closed notes/books. Calculators, computers and collaboration are not allowed.

Computing

The use of numerical tools such as Matlab is not required, but you are encouraged to use such tools to plot or check solutions. Likewise, typesetting of homework is not required.