

MATHEMATICS 46

INTRODUCTION TO ORDINARY DIFFERENTIAL EQUATIONS

Text: *Elementary Differential Equations and Boundary Value Problems, Seventh Edition*, by W. E. Boyce and R. C. DiPrima

Instructor: Zhuang-dan Daniel Guan

Class: MWF: 3.10—4.00pm. Spr. 1340

First class: Jan. 4 Friday.

Office Hours: TTh 2.30—4.00pm Surge 237.

This is a course covering the basic material on differential equations. Topics covered include first order equations, linear second order equations, Laplace transforms and elementary applications to the physical and biological sciences.

Outline for Mathematics 46

We plan to cover the following sections and expect your eager and sincere participations:

TOPICS	SUGGESTED NO. OF 50 MIN. CLASSES
Linear and separable first order equations 12 (§§ 1.1—1.3, 2.1—2.3, 2.5—2.7)	
Second order linear equations 9 (§§ 3.1—3.7)	
Laplace transforms 6 (§§ 6.1—6.3, 6.6)	

Tests: Midterm: Feb. 22 3.10—4.00pm Friday; Final: March 22 3—6pm Friday.

Homework: Homework assigned during the each Wednesday class is due to following Wednesday..

Homework is important, it counts for 10% of the total credit.

Discussion quizzes 10%.

Midterm 30%, and Final 50%.