

**M2302: Elementary Differential Equations section 5590**  
**MWF Period 4 (10:40 AM - 11:30 AM) Room: NRN3035**

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**Instructor:** Cheng Yu, Little Hall 416, chengyu@ufl.edu

**Office Hours:** MW 12:30-1:30pm or by appointment.

**Textbooks:** Fundamentals of Differential Equations and Boundary Value Problems, the 7th edition, Addison- Wesley/Pearson (Publisher), Nagle, Saff, Snider (required).

Please note that this course will be participating in the UF All Access program. Login at <https://www.bsd.ufl.edu/G1CO/IPay1f/start.aspx?TASK=INCLUDED> and Opt-In to gain access to your required course materials - UF All Access will provide you with your required materials digitally at a reduced price and the charges will post directly to your student account, allowing any available Financial Aid funds to cover the cost of your materials. This option will be available starting 1 week prior to the first day of classes and ending 3 weeks after the first day of class.

**Prerequisites:** Grade C or better in MAC 2313, MAC 2512 or MAC 3473.

**Description:** This course designed for the students from math and Engineering. In this course, we will discuss a variety of topics in Ordinary differential equations and several applications in biology and in mechanics. In particular, we will cover the essentials from chapters 1-5 and chapter 7 of the textbook, that is

Introduction

First-order differential equations

Mathematical Models and numerical methods involving First-order equations

Linear Second-order equations

Introduction to system and phase plane analysis

Laplace transforms

**Homework assignments:** There will be several homework assignments. The test questions will be similar but different to homework problems. Please do all homework problems independently.

**Exams:** No use of calculators, or books will be allowed during any tests. No makeups WITHOUT medical documentation. It is the students' responsibility to have reliable internet connection, sufficient internet speed and cleared cache and cookies before each exam. Webcams are required for use of Honorlock. There will be three Mid-exams and one comprehensive final as follows

Midterm Exam 1: Feb. 15, Monday.

Midterm Exam 2: Mar. 22, Monday.

Midterm Exam 3: April 16, Friday.

Final Exam: Friday, December 18, Group 18A, 7:30 a.m - 9:30 a.m..

**Grade Policy:** Homework is 15 percent, each mid exam is 20 percent, and final is 25 percent. The class participation will be considered in borderline grades. The grade scale is as follows:

A : [90, 100].

B+:[85, 90).

B : [80, 85).

B-:[77, 80).

C+:[75, 77).

C : [70, 75).

C-:[68, 70).

D : [60, 68).

F : [0, 60).

**Extra Help:** Please stop by my office during office hours or by appointment to discuss the homework problems or any aspect of the course.

**Attendance Policy:** Please come to class on time. Please attend all classes. Don't talk with any students in class. Do not use computers, cell phones and other electronic devices during the lectures.

**Students with Disabilities:** Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.