COURSE Description: A study of first-order and linear second-order differential equations with applications. Topics include solution techniques, qualitative behavior, numerical methods, Laplace transformations, and the use of series. Prerequisite(s): MATH 2012 or permission of instructor.


GRADING: Your grade for the course will be based on three equal factors: homework assignments, a midterm exam, and a cumulative final exam. The midterm and final exam may contain both in-class and take-home portions. Your letter grade for the course will be assigned using a standard ten-point scale: 90% guarantees a grade of A, 80% a grade of B, etc. I will not accept late homework or give a make-up exam.

HOMEWORK POLICY: You may work together on any assignment unless I specifically forbid it. However, you should write up your solutions independently and include references as necessary since any work turned in to me will be assumed to reflect your own understanding.

WITHDRAWALS AND ATTENDANCE: If you wish to withdraw before midterm (March 7), you must take the responsibility for filling out the necessary forms. I will take attendance daily and reserve the right under University policy to issue a grade of “WF” after the midterm to students who miss five or more classes.

COURSE OUTLINE:

1. Introduction
2. Chapter 1: First order ODEs
3. Chapter 2: Higher order linear ODEs
4. Chapter 6: The Laplace transform
5. Chapter 7: Power series methods
6. Chapter 3: Systems of ODEs

NOTE: The final exam for this course is scheduled for Wednesday, May 4, 2:00-4:00 pm, in AH E362.

NOTE: Audio or video recording of lectures or class activities is prohibited without my explicit permission.