

## **MATH 242 (Elementary Differential Equations), Spring 2021**

### **Meeting Information:**

Days and Times: TTH 10:05Am-11:20AM

Classroom Location: Online

### **Instructor Information**

Xinfeng Liu

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Phone: 576-5849

Office Location: LC 317Q

Online office Hours: TTH 11:30AM–12:30PM or by prior appointment

Course Homepage: [people.math.sc.edu/xfliu/teaching/Spring2021/math242/math242.htm](http://people.math.sc.edu/xfliu/teaching/Spring2021/math242/math242.htm)

### **Textbook**

Differential Equations (computing and modeling), 5th Edition, by C. H. Edwards, D. E. Penney and D. T. Calvis.

### **Prerequisite**

A grade of C or higher in Math 142.

### **Subject Materials**

We shall cover most of the material presented in Chapters 1-4 and in Chapter 7 of the text.

### **Homework and Quiz**

Homework will not be collected, but you are supposed to do them all. REMEMBER: the more problems you do, the better you understand the material. There will be approximately one quiz per week on Thursday, and no quiz during the exam weeks. There are two to four problems for each quiz. The quiz problems will be either the same as, or very similar to those from the homework. Thus, if a student has made a good attempt at the homework, he/she should do well on the quiz. One lowest quiz grade will be dropped from the final grade calculation.

### **Exams**

There will be two midterm exams and a comprehensive final exam. The exams are “closed book”: no books, no notes, no calculators, no laptop computer or equivalent technology, etc. There are no early exams. A late exam is only possible for a written legitimate documented reason. Note that student athletes, participating in a USC athletic event and with appropriate documentation, are exempt from this rule. You must take your exams with the lecture for which you are registered.

## Grades

Quizzes (20%) (one lowest quiz will be dropped)

Exam 1 (25%), 10:05AM-11:00AM (in person), Thursday, March 4, 2021

Exam 2 (25%), 10:05AM-11:00AM (in person), Thursday, April 8, 2021

Final (30%), 9:00AM-11:30AM (in person), Thursday, April 29, 2021

The deadline to drop this course without a grade of W is **Tuesday, January 19, 2021**. The dates and materials for two mid-term exams are tentative and subject to change as announced in class.

## Reading

Reading the textbook **in advance** of the lecture is strongly encouraged. Benefits of this preparation include obtaining a familiarity with the terminology and concepts that will be encountered (so you can distinguish major points from side issues), being able to formulate questions about the parts of the presentation that you do not understand, and having a chance to review the skills and techniques that will be needed to apply the new concepts.

## Learning Outcome

Students who successfully complete Math 242 will be able to accomplish the following: a): solve initial-value problems and find general or particular solutions to ordinary differential equations; b): develop skills to use various solution methods such as integrating factors, substitution, Laplace transforms, and etc. c): use differential equations to solve practical problems. Students are also expected to master mathematical concepts and apply these concepts to solve problems of first order and higher order linear ODEs based upon the methods they learn from this class.

## Attendance

Attendance at every class meeting is important - and expected.

## Cell Phone and Computer Policy

Please remember to turn off or silence your cell phone prior to class. No texting allowed during class. Computers can only be used to make notes during class, and playing computer games during class is not tolerated.

## Academic Dishonesty

Cheating and plagiarism in any form is not tolerated. If a student is caught cheating, I will follow the guidelines as set forth in the USC Honor Code and other University guidelines.