MATH 520 (Ordinary Differential Equations), Spring 2019

Meeting Information:
Classroom Location: Leconte College 405
Days and Times: TTH 11:40AM-12:55PM
Instructor Information
Xinfeng Liu
Email: xfliu@math.sc.edu
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Office Location: LC 317Q
Office Hours: TTH 10:00AM–11:30AM or by prior appointment
Course Homepage: people.math.sc.edu/xfliu/teaching/Spring2019/math520/math520.htm

Textbook

Elementary Differential Equations, 10th Edition, by William E. Boyce and Richard C. DiPrima

Prerequisite

A grade of C or higher in Math 344 or 544.

Subject Materials

We shall cover most of the material presented in Chapters 1-9.

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 labtop 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 (25%) (one lowest quiz will be dropped)
Exam 1 (20%), Thursday, February 28, 2019
Exam 2 (20%), Thursday, April 11, 2019
Final (35%), 12:30-PM-3:00PM, Tuesday, May 7, 2019

The deadline to change/drop this course without a grade of W is **Tuesday, January 22, 2019**. The dates and materials for three 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 520 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/nonlinear ODEs based upon the methods they learn from this class.

Attendance

Attendance at every class meeting is important - and expected. Students missing more than 10% of the class meetings (4 days) can have their grade lowered.

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.