

## MATH 308/503, Differential Equations, Autumn 2013

**Instructor:** Murtazo Nazarov

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Office hours: Mondays 1:00pm-2:00pm, or by appointments

**Course homepage:** <http://www.math.tamu.edu/~murtazo/teaching/math308/>

**Class hours:** Mondays and Wednesdays, 10:20 am - 11:10 am, Blocker 128  
Fridays, 10:20 am - 11:10 am, Blocker 149

**Textbook:** Text: Boyce/DiPrima, Elementary Differential Equations: Custom TAMU Edition, Wiley, ISBN 9781118133712

**Course Description:** 308. Differential Equations. (3-0). Credit 3. I, II, Ordinary differential equations, solutions in series, solutions using Laplace transforms, systems of differential equations.

**Prerequisites:** MATH 251 or equivalent; knowledge of computer algebra system.

**Objectives:** In this class you will get skills to solve the first order, linear second order and systems of linear differential equations. At the end of the course you are expected to be able to solve all types of problems discussed during class and assigned from the text.

### Schedule:

**Week 1:** sections 1.-2, and 2.1

**Week 2:** sections 2.2-2.5

**Week 3:** sections 2.6,3.1-3

**Week 4:** sections 3.4-3.6

**Week 5:** sections 3.7-8 and 6.2

**Week 6:** sections 6.3-4

**Week 7:** review for exam 1, exam 1 and section 6.5

**Week 8:** sections 6.6 and 7.1

**Week 9:** sections 7.2-7.4

**Week 10:** sections 7.5-7.7

**Week 11:** sections 7.8-7.9

**Week 12:** review for exam 2, exam 2 and section 5.1

**Week 13:** sections 5.2-5.6

**Week 14:** sections 8.1-8.3

**Homeworks:** Solving the homework problems in time helps you to understand the subject, get more learning experience and get prepared to quizzes, midterm and final exams. The homeworks are not graded but it is highly recommended to solve them in time. There will be one programming assignment, where you can work in a group of two. You will have to run your code and explain your solution. A bonus point is given if you are done the programming assignment in time and correctly.

**Quizzes:** Quizzes will usually be given on Fridays, except during the midterm weeks. Typically a quiz will last 10-15 minutes and cover material similar to assigned problems and/or knowledge of basic facts from the text or lectures. A list of practice problems, help session hours, etc, will be posted on my

home page. Grading Questions: If you have any question about the grading of a quiz or exam **you must contact me within two class days** of the paper's return. One quiz with the lowest grade will be dropped at the end of the course.

**Grading:**

**Quizzes:** 30%

**Midterm 1:** 20%, Friday February 28, 10:20 am - 11:10 am, Blocker 149

**Midterm 2:** 20%, Friday April 4, 10:20 am - 11:10 am, Blocker 149

**Final:** 30%, Tuesday May 6, 8:00 am - 10:00 am, room TBA

Your point total  $T$  will be converted to a final grade like this: A if  $90\% \leq T$ , B if  $80\% \leq T < 90\%$ , C if  $70\% \leq T < 80\%$ , D if  $60\% \leq T < 70\%$ , F if  $T < 60\%$ .

**Make-Up Policy:** Make-ups for exams will only be given with documented University-approved excuses (see University Regulations). Consistent with [University Student Rules](#), students are required to notify an instructor by the end of the next working day after missing an exam. Otherwise, they forfeit their rights to a make-up.

**Scholastic Dishonesty:** Students may work together and discuss the homework problems with each other. Copying work done by others is an act of scholastic dishonesty and will be prosecuted to the full extent allowed by University policy. For more information on university policies regarding scholastic dishonesty, see [University Student Rules](#).

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