

Fall 2023, Math 220, Elementary Differential Equations

Course Information

- **Course Coverage:** This course intends to cover some basic topics of ordinary differential equations at the junior undergraduate level: first order differential equations, second order linear equations, the Laplace transform, systems of first order linear equations and nonlinear differential equations and stability. We tentatively plan to discuss the following chapters and sections: Sec. 1.1--Sec. 1.3 in Chapter 1, Sec. 2.1-- Sec. 2.3 and 2.6 in Chapter 2, Sec. 3.1-- Sec. 3.4 in Chapter 3, Sec. 6.1--Sec. 6.4 in Chapter 6, Sec. 7.1, 7.3 - 7.6 in Chapter 7 and Sec. 9.1 -- 9.3 in Chapter 9. This is a 3 credit hour course.
- **Time:** MWF: 10:00 --- 10:50 AM
- **Location:** Snow Hall 120
- **Text:** Elementary Differential Equations (11th Edition), by William Boyce and Richard Dprima
- **Prerequisite:** Math 122 and Math 142 or equivalent.
- **Instructor:** Shuanglin Shao
- **Office:** Snow Hall 627
- **Email:** slshao@ku.edu
- **Office Hour:** MWF: 11AM-12 PM or by appointment.

- The grader information: Albalushi, Younis Ahmed, y027a513@ku.edu

Grade Policy

- **Homework:** There will be 10 homework. The grading scheme is as follows: count all the problems and round it to the closest square, n by n matrix. The n^2 depends on how many problems that have been assigned. Then we grade the problems on the diagonal entries. The lowest homework grade will be dropped. Please mark the following tentative due dates of homework on your calendar: **HW 1. (09/01/2023); HW 2. (09/18/2023); HW 3. (09/29/2023); HW 4. (10/09/2023); HW 5. (10/23/2023); HW 6. (10/30/2023); HW 7. (11/06/2023); HW 8. (11/17/2023); HW 9. (12/01/2023); HW 10. (12/08/2023).** No late homework.
- **Quizzes:** There will be 5 quizzes in class. Please mark the following tentative quiz dates on your calendar: **Quiz 1. (08/28/2023); Quiz 2. (09/08/2023) ; Quiz 3. (09/25/2023); Quiz 4. (10/13/2023); Quiz 5. (11/3/2023)**
- **Midterm:** There will two midterms of 50 minutes in the usual classroom meeting time. The first midterm is tentatively scheduled on **10/13/2023**; the second midterm is tentatively scheduled on **11/20/2023**. If you need to take make-up midterms, please talk with the instructor one-week before the actual midterm time. In order to take the make-up midterms, you need to have a valid excuse; in most cases, a note signed by doctors suffices.
- **Final Exam:** There is a comprehensive final exam in class. The time is **7:30 AM—10 AM** on **12/15/2023**.
- **Attendance policy:** Attendance is strongly encouraged but not required.
- **Tech:** The homework and the course information will be on Canvas. All the homework will be submitted via Canvas.

- **Calculator policy** TI-83/84 or similar Graphing Calculators are allowed in both exams and homework. The crib sheet of one-page is allowed in exams but only one-sided.
 - **Students with disabilities** If you have a disability for which you may request accommodation in KU classes, please contact the Academic Achievement and Access Center (AAAC), Strong Hall Room 22, (Tel.) 785-864-4064, or (Email. achieve@ku.edu). Please also see the instructor in advance and privately.
 - **Policy on religious observances** All students in this course who plan to observe a religious holiday which conflicts in any way with the course schedule or requirements should contact the instructor as soon as possible to discuss alternative accommodations.
 - **Grade Percentage:** homework (30%) + midterm (30%) + quizzes (10%) + final (30%). In each category, students are expected to demonstrate proficiency and skills. Like playing piano, the instrument is an accompany. If in doubt, professors can be a help. Please consider seriously visiting Professors' office hours. All the work including the professors' will be evaluated and scrutinized.
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Homework

- **HW problems assigned on KU Canvas.**