

MATH 2610 - ORDINARY DIFFERENTIAL EQUATIONS - SPRING 2023

Instructor: Professor Jesse Peterson

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Office: SC 1414

Office Hours:

Tuesdays: 1:45-3:00pm

Thursdays: 2:45-4:00pm

Course Description and Book:

Math 2610. Ordinary Differential Equations. First- and second-order differential equations, applications. Matrix methods for linear systems; stability theory of autonomous systems; existence and uniqueness theory. Intended for mathematics and advanced science majors.

Book: Differential Equations and Boundary Value Problems, Seventh Edition, by Nagle, Saff, and Snider.

Website:

<http://www.math.vanderbilt.edu/peters10/teaching/spring2023/math2610.html>

Homework:

Homework assignments will be given in class and on the course webpage. Each assignment is due by the beginning of class on its due date. Assignments turned in after the beginning of class will be considered late.

You are allowed, and encouraged even, to work in groups on the homework. However, you must each turn in your own written solutions.

Keep in mind that it may take time to the grader to grade each assignment. You may want to make a copy of your homework before turning it in so that you can use it to study for the exam.

Late homework:

It is your responsibility to have your homework turned in by the beginning of class on the day it is due. This is the case even if you are unable to attend the class yourself. I will allow late homework without penalty but only if it is turned in during regularly scheduled office hours no later than 7 days after its due date. If you turn in late homework, you will also have to present on the blackboard a problem of my choosing during office hours.

Homework guidelines:

The homework you turn in should look neat and professional. The following guidelines must be followed.

- It must be written on 8.5x11 inch white paper which is either lined or blank. If lined paper is used it should only be three hole punch with no fringe.

- It should be either typed, or written in pencil or black ink.

- It should be stapled. (There is not a stapler in the classroom.)

- The problems must be answered linearly in the order they are assigned.

- It should look neat, with space left between problems and in the margins.

- It should not have scratch work or scribbles on it.

- Your solutions should clearly indicate your reasoning, credit will not be given if you do not show your work.

- The problems must be written on your homework directly before your solutions. You do not need to write the problems out word for word, but it should be clear enough so that someone can understand the problem without having to refer to the book.

Exam dates (in class):

Tuesday, February 14th.
Tuesday, March 28th.

Final exam (in class and comprehensive):

Wednesday, May 3rd, 9-11am, Comprehensive final exam with an emphasis on later sections. No alternate exam will be given.

Grades:

The common grading scale used will be: A:93-100, A-:90-92, B+:87-89, B:83-86, B-:80-82, C+:77-79, C:73-76, C-:70-72, D+:67-69, D:63-66, D-:60-62, F:0-59. The final grade will be based on the homework (25%), tests (20% each), and final exam (35%). Individual exams may be curved as needed but the final grade will not be curved.

Academic integrity:

You will all be held to the standards set forth in the student handbook. Vanderbilt's honor code applies to this course.

Make-up policy:

There will be no make-up tests or homework assignments. The stated attendance policy of the College of Arts and Science applies in this course: Students are expected to attend all scheduled meetings of classes in which they are enrolled; they have an obligation to contribute to the academic performance of all students by full participation in the work of each class. The faculty of the College of Arts and Science recognizes that occasions arise during the academic year that merit the excused absence of a student from a scheduled class or laboratory during which an examination, quiz, or other graded exercise is given. Examples include participation in sponsored university activities (e.g., debate team, varsity sports), observance of officially designated religious holidays, serious personal problems (e.g., serious illness, death of a member of the students family), and matters relating to the students academic training (e.g., graduate or professional school interviews). Conflicts arising from personal travel plans or social obligations do not qualify as excused absences.

Math department policy regarding course changes:

The last day for students to add a math course on YES is Tuesday, January 17th. After this date, students will not be permitted to add a math course or change sections of a math course. Between January 18th and January 23rd, students may change the level of a course (e.g., switching from Math 1301 to Math 1300 or vice versa) by contacting the DUS (Henry Chan).

Important Dates:

January 16, Martin Luther King Jr. Day. Classes do not meet.
March 13-17, Spring Break. Classes do not meet.
April 18-24, Dead Week. No in-class examinations this week.
April 24, Last day of lectures.
May 3, 9-11am, Comprehensive final exam. No alternate exam will be given.
May 12, Commencement.