

Math 3331, Ordinary Differential Equations. Sanders, Spring 2025

Prerequisite: Math 2318 and Math 2433. No Matlab.

Text: My homework notes will be self contained.  
I'll be glad to suggest supplemental reading material.

Exams: Two midterm exams ( $2 \times 30\%$ ) and a cumulative final exam (40%).

Topics: 1: Introduction  
2: First-Order Equations  
3: Modeling and Applications  
4: Second-Order Equations  
5: Existence and Uniqueness  
7: Matrix Algebra  
8: An Introduction to Systems  
9: Linear Systems with Constant Coefficients  
10: Phase-Plane Portraits and Linearization

Homework and additional notes will be posted on my web page:

<https://www.math.uh.edu/~sanders>.

I will not give makeup (early or late) exams. The final is cumulative and is mandatory. If a single midterm exam is missed, a virtual score is computed for the missed exam based on your final exam score and the statistics of the final and missed midterm.

Your course grade will be based solely on your two midterms and final; ( $2 \times 30\%$ ), ( $1 \times 40\%$ ).

I guarantee a total average of 90% will at least earn a class grade of  $A-$ , 80% a  $B-$ , etc. Depending on the class however, I will likely curve down some target letter grades.

I will not give incompletes at any time, not before nor after the university drop date.

Your final exam will be given on the date/time specified by the university's final exam schedule, see

<https://uh.edu/academics/courses-enrollment/final-exam-schedules>.

The final is mandatory and its date/time will not be moved for any reason.

- Mental Health and Wellness Resources

The University of Houston has a number of resources to support students mental health and overall wellness, including **CoogsCARE** and the **UH Go App**. UH Counseling and Psychological Services (CAPS) offers 24/7 mental health support for all students, addressing various concerns like stress, college adjustment and sadness. CAPS provides individual and couples counseling, group therapy, workshops and connections to other support services on and off-campus. For assistance visit <https://uh.edu/caps>, call (713) 743-5454, or visit a **Let's Talk** location in-person or virtually. Let's Talk are daily, informal confidential consultations with CAPS therapists where no appointment or paperwork is needed.

The Student Health Center offers a Psychiatry Clinic for enrolled UH students. Call (713) 743-5149 during clinic hours, Monday through Friday 8 a.m. – 4:30 p.m. to schedule an appointment. The **A.D. Bruce Religion Center** offers spiritual support and a variety of programs centered on well-being.

If you or someone you know is struggling or in crisis, help is available. Call CAPS crisis support 24/7 at (713) 743-5454, or the National Suicide and Crisis Lifeline: call or text 988, or chat [988lifeline.org](https://988lifeline.org).

- Academic Honesty Policy

High ethical standards are critical to the integrity of any institution, and bear directly on the ultimate value of conferred degrees. All UH community members are expected to contribute to an atmosphere of the highest possible ethical standards. Maintaining such an atmosphere requires that any instances of academic dishonesty be recognized and addressed. The UH Academic Honesty Policy is designed to handle those instances with fairness to all parties involved: the students, the instructors, and the University itself. All students and faculty of the University of Houston are responsible for being familiar with this policy.

- Title IX/Sexual Misconduct

Per the UHS Sexual Misconduct Policy, your instructor is a "responsible employee" for reporting purposes under Title IX regulations and state law and must report incidents of sexual misconduct (sexual harassment, non-consensual sexual contact, sexual assault, sexual exploitation, sexual intimidation, intimate partner violence, or stalking) about which they become aware to the Title IX office. Please know there are places on campus where you can make a report in confidence. You can find more information about resources on the Title IX website at

<https://uh.edu/equal-opportunity/title-ix-sexual-misconduct/resources/>.

- Reasonable Academic Adjustments/Auxiliary Aids

The University of Houston is committed to providing an academic environment and educational programs that are accessible for its students. Any student with a disability who is experiencing barriers to learning, assessment or participation is encouraged to contact the **Justin Dart, Jr. Student Accessibility Center** (Dart Center) to learn more about academic accommodations and support that may be available to them. Students seeking academic accommodations will need to register with the Dart Center as soon as possible to ensure timely implementation of approved accommodations. Please contact the Dart Center by visiting the website, <https://uh.edu/accessibility/>, or calling (713) 743-5400, or emailing [jdcenter@Central.UH.EDU](mailto:jdcenter@Central.UH.EDU).

- Excused Absence Policy

Regular class attendance, participation, and engagement in coursework are important contributors to student success. Absences may be excused as provided in the University of Houston Undergraduate Excused Absence Policy and Graduate Excused Absence Policy for reasons including: medical illness of student or close relative, death of a close family member, legal or government proceeding that a student is obligated to attend, recognized professional and educational activities where the student is presenting, and University-sponsored activity or athletic competition. Under these policies, students with excused absences will be provided with an opportunity to make up any quiz, exam or other work that contributes to the course grade or a satisfactory alternative. Please read the full policy for details regarding reasons for excused absences, the approval process, and extended absences. Additional policies address absences related to military service, religious holy days, pregnancy and related conditions, and disability.

- Recording of Class

Students may not record all or part of class, livestream all or part of class, or make and/or distribute screen captures, without advanced written consent of the instructor. If you have or think you may have a disability such that you need to record class-related activities, please contact the Justin Dart, Jr. Student Accessibility Center. If you have an accommodation to record class-related activities, those recordings may not be shared with any other student, whether in this course or not, or with any other person or on any other platform. Classes may be recorded by the instructor. Students may use instructor's recordings for their own studying and notetaking. Instructor's recordings are not authorized to be shared with anyone without the prior written approval of the instructor. Failure to comply with requirements regarding recordings will result in a disciplinary referral to the Dean of Students Office and may result in disciplinary action.