Math 3331, Ordinary Differential Equations. Sanders, Spring 2021

Prerequisite: Math 2331 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 × 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
6: Matrix Algebra
7: An Introduction to Systems
8: Linear Systems with Constant Coefficients
9: Nonlinear Systems (if time permits)

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 × 30%), (1 × 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.

- Lectures will be online via Microsoft Teams. Make sure to set up Teams ASAP.
- Your exams will be written and also given online.
- Teams lectures and midterm exams will be given at the regular class time, for this class this semester T&Th 1:00–2:30.
• For midterm exams, I will give you at least a one week heads-up in lecture before the midterm is given.

• Your final exam will be given on the date/time specified by the university’s final exam schedule. The final is mandatory and its date/time will not be moved for any reason.

• Following each class, I will post a pdf copy of my given handwritten lecture from a link on my web page (its url is given above).

• You may not record or distribute screen captures of any portion of my class lectures without prior written agreement from me.

• Your midterm and final exams are written, and your solutions must be scanned to a single pdf file in order to submit them to me at the end of the exam period. Free smart phone apps are available. Desktop scanners can also be used.

• Exam taking will be video monitored. An internet connected compute device with webcam is required.

Additional Syllabus Items Suggested by the University

Syllabus Changes: Due to the changing nature of the COVID-19 pandemic, please note that the instructor may need to make modifications to the course syllabus and may do so at any time.

Resources for Online Learning: The University of Houston is committed to student success, and provides information to optimize the online learning experience through our Power-On website. Please visit this website for a comprehensive set of resources, tools, and tips including: obtaining access to the internet, AccessUH, and Blackboard; requesting a laptop through the Laptop Loaner Program; using your smartphone as a webcam; and downloading Microsoft Office 365 at no cost. For questions or assistance contact UHOnline@uh.edu.

Honor Code Statement: Students may be asked to sign an honor code statement as part of their submission of any graded work including but not limited to projects, quizzes, and exams: "I understand and agree to abide by the provisions in the University of Houston Undergraduate Academic Honesty Policy. I understand that academic honesty is taken very seriously and, in the cases of violations, penalties may include suspension or expulsion from the University of Houston."

UH Email: Email communications related to this course will be sent to your Exchange email account which each University of Houston student receives. The Exchange mail
Synchronous Online Courses: This course is being offered in the Synchronous Online format. Synchronous online class meetings will take place according to the class schedule. There is no face-to-face component to this course. In between synchronous class meetings, there may also be asynchronous activities to complete (e.g., discussion forums and assignments). This course will have a final exam per the University schedule. The exam will be delivered in the synchronous online format, and the specified date and time will be announced during the course. Prior to the exam, descriptive information, such as the number and types of exam questions, resources and collaborations that are allowed and disallowed in the process of completing the exam, and procedures to follow if connectivity or other resource obstacles are encountered during the exam period, may be provided.

Webcams: Access to a webcam is required for students participating remotely in this course. Webcams must be turned on (state when webcams are required to be on and the academic basis for requiring them to be on). (Example: Webcams must be turned on during exams to ensure the academic integrity of exam administration.)

Recording of Class: Students may not record all or part of class, livestream all or part of class, or make/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 Center for Students with DisABILITIES. 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.

Suggested Helpful Links

COVID-19 Updates:
https://uh.edu/covid-19/
Coogs Care:
https://www.uh.edu/dsaes/coogscare/

Laptop Checkout Requests:
https://www.uh.edu/infotech/about/planning/off-campus/index.php#do-you-need-a-laptop

Health FAQs:
https://uh.edu/covid-19/faq/health-wellness-prevention-faqs/

Student Health Center:
https://uh.edu/class/english/lcc/current-students/student-health-center/index.php