

MATH 2552 Syllabus

Differential Equations, Section-D, 4-credit hours.

Fall 2026.

Instructor Information.

Instructor: Chandler Smith.

Email: csmith907@gatech.edu.

Course Meeting Time: 9:30-10:45 AM in Instructional Center 211

Office Hours: 2-4 PM in Clough 248.

Studio Sessions

Session Number	Time	Location	Instructor	Instructor Email
D01	12:00-12:50 MW	Skiles 170	Lewis McGoldrick	lmcgoldrick6@gatech.edu
D02	11:00-11:50 MW	Skiles 257	Justin Liu	jliu3203@gatech.edu
D03	11:00-11:50 MW	Skiles 170	Lewis McGoldrick	lmcgoldrick6@gatech.edu

General Course Information:

Description:

This course teaches methods solving elementary differential equations, including first-order equations and linear equation systems. Applications are also discussed with modeling. Qualitative studies of solutions, emphasizing stability and instability, are discussed throughout the course.

Course Learning Outcomes:

1. Solve first-order differential equations.
2. Solve first-order linear differential systems.
3. Solve second-order linear differential equations.
4. Solve differential equations using Laplace transforms.
5. Solve some real-world problems using differential equations.
6. Analyze stability within linear and nonlinear differential equation solutions..
7. Solve first-order differential equations using basic numerical methods.

Required Course Materials:

Title: Differential Equations-An Introduction-to-Modern Methods and Applications.

Edition: Third Edition.

Authors: James Brannan and William Boyce.

Publisher: John Wiley & Sons.

Availability: Georgia Tech Barnes & Noble Bookstore.

Grading Policy:

Quizzes-24%, Midterms-34%, Final-37%; online Homework-5%.

Grading Scale:

A $\geq$ 90; B $\geq$ 80; C $\geq$ 70; D $\geq$ 60, F < 60.

Description of Graded Components:

1. Quizzes:
 - (a) Quiz Requirements: Five total assessments.
 - (b) Score Adjustment: Dropping the lowest quiz performance.
 - (c) Weighting: 6% per quiz
2. Midterms:
 - (a) Midterm Requirements: Two total assessments.
 - (b) Weighting: 17% per midterm
3. Online homework:
 - (a) Homework Platform: Online assignments via WeBWork.
 - (b) Score Policy: Dropping the two lowest performances from HW01-HW15.
4. Final-Exam:
 - (a) Final-Exam Requirements: One assessment.
 - (b) Weighting: 37%
5. Students attend quizzes, midterms & final in-person. These assessments require completing work without using external notes or textbooks. The instructor prohibits the use of any electronic equipment during these in-person assessments.

Course Policies:

Extra Credit Opportunities:

1. **Studio Attendance:** Maintain 80-percent attendance within enrolled studio sessions and earn a 1-percent final average bonus. Digital learning days, the first week, and the final session include "present" marks.
2. **CIOs Survey:** Achieving 85-percent lecture CIOs response-rate before the final session grants all students a 1-percent course average bonus.

Attendance and Participation:

Regular class attendance directly correlates with higher scores. Please attend each class. Inform me regarding absences. Staying current remains our priority. Students are expected to attend the assessments in the section they are enrolled into.

Course Websites

You can find all homework assignments (HW00–HW15) under the Canvas Assignments tab, which connects to WeBWorK. Assignments are due almost every Monday at 12:00 PM (Noon), and late work is not accepted. HW00 is an ungraded warmup to help you practice using the system. You may attempt each problem as many times as you like before the deadline without penalty. Your final homework grade will be based equally on your top 13 assignment scores.

Academic Integrity

Students must maintain highest ethical standards. Review Georgia Tech's Honor Code and the student Code of Conduct. Suspected assessment violations necessitate Office of Student Integrity notification, investigation, & penalties.

Netiquette

Because this course has a significant online component, all students are expected to follow proper online etiquette, or netiquette. In all online interactions, you should follow the same standards of behavior that apply in in-person meetings with classmates, teaching assistants, and the instructor. Respect for others is expected at all times, and negative personal comments are not permitted. Please also be considerate of your classmates by turning off your microphone and webcam when appropriate. If your webcam is on, be sure to wear appropriate clothing. You may unmute yourself to ask questions during class, but spamming the chat or posting inappropriate content may result in removal from the virtual session.

Make Up Exams

In general, make-up exams, including quizzes, midterms, and the final exam, will not be given, and a missed exam will receive a score of zero. If you have a valid reason to request a make-up exam, please email me as early as possible and before the exam, along with reasonable written documentation supporting your request. In cases involving a serious illness or family emergency, please contact the Dean of Students, who will review the situation and communicate with us if necessary. Students who miss class due to a religious observance may make up missed work without penalty, provided they notify me in writing by email within the first two weeks of class and complete the work within the timeframe established by the instructor. No make-up exam will be scheduled after the original exam has been graded and returned to other students. If an excused absence causes you to miss both a midterm and its make-up exam, your final exam score will replace the missed midterm score. This policy applies to only one midterm. If more than one midterm and make-up exam are missed, a score of zero will be assigned to any additional missed midterm.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services (404-894-2563) as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.

Student-Faculty Expectations Agreement

The Student-Faculty Expectations document details mutual requirements. Practice Georgia Tech ideals consistently throughout this term.

Digital Learning Days

Should campus close due to conditions like inclement weather, a digital learning day will take the place of in-person class. If this occurs on a lecture or studio day, a recording will be provided for asynchronous viewing before, on, or after the DLD. If a quiz is impacted, it will be rescheduled to another studio day. If a midterm exam is impacted, a recording will be uploaded for you to watch asynchronously, and the exam will be moved to a later lecture day.

Regrade Requests

Any regrade request must be submitted through Gradescope within two weeks of receiving the graded exam. Please include an explanation of the reason for your request. Before submitting a regrade request, be sure to review the posted solutions carefully.

Exercises

Exercises will be listed on the Course Schedule webpage. These exercises are separate from the WeBWorK online homework on Canvas and will not be collected. However, I strongly encourage you to complete all assigned exercises. To develop a strong understanding of the course material, you should read the textbook, review the examples covered in lectures and studios, complete the online homework, and work through the assigned exercise problems.

Math Lab

Asking questions is an important part of learning and success. Free walk-in help is available Monday through Friday in the Math Lab for students enrolled in 1000-3000 level mathematics courses. The Math Lab schedule can be found on the MathLab. The Math Lab is located in Clough 280.

1-to-1 and Small Group Tutoring with UTAs

Free in-person one-on-one and small-group tutoring is available for students in 1000- and 2000-level courses. Tutoring appointments can be scheduled with any UTA through UTA Tutoring. Tutoring sessions are held in Skiles 230.

PLUS Sessions

PLUS is a free academic support program that offers students a chance to work collaboratively with peers to deepen their understanding of course material. This program is designed to organize and improve the ways in which students prepare for class. Students are invited to attend two regularly scheduled, one-hour PLUS study sessions, which are facilitated by “PLUS Leaders” - students who have successfully completed the course from Georgia Tech, attend lectures with the students, and plan interactive activities that are designed to get the students to help one another, rather than rely on instruction from the PLUS Leader. See [here](#) for the schedule (coming soon!)

Statement on Inclusivity

As a member of the Georgia Tech community, I am committed to creating a learning environment where all students feel safe, welcomed, and included. Because every student has different needs and experiences, your feedback is important in helping me achieve this goal. I encourage you to share your thoughts about what I can start, stop, or continue doing to help make our classroom a place where every student feels valued and can actively participate in our learning community.

Campus Resources for Students

Georgia Tech provides a variety of academic and personal support resources to help students succeed. Academic support includes Drop-In Tutoring/MathLab, Academic success and advising services, 1-1 tutoring at Tutoring and Academic Support, Peer-Led Undergraduate Study at Tutoring and Academic Support, Academic coaching at Advising and Transition, Housing and Residence Life, OMED Educational Services, the Communication Center, and academic advising for your major. These resources offer tutoring, study support, coaching, writing assistance, and academic guidance. Personal support resources are also available through the Office of the Dean of Students (404-894-2565), Center for Mental Health Care and Resources (404-894-2575), Students' Temporary Assistance and Resources (STAR) Services, Stamps Health Services (404-894-1420), OMED Educational Services (404-894-3959), Arts, Belonging and Community (404-385-0230), Veterans Resource Center (404-385-2067), and the Georgia Tech Police Department (404-894-2500). These services provide support for mental health, personal well-being, emergency assistance, health care, community engagement, veteran services, and campus safety.

Make-up Dates

If you need to make-up a quiz or an exam (and you get it approved by me!), see the following for the dates and locations:

Assessment	Make up on	Make up time	Location
Make up Quiz 1	September 11	1:00 PM to 1:25 PM	Skiles 254
Make up Quiz 2	September 25	1:00 PM to 1:25 PM	Skiles 254
Make up Midterm 1	October 9	1:00 PM to 2:15 PM	Skiles 254
Make up Quiz 3	October 23	1:00 PM to 1:25 PM	Skiles 254
Make up Quiz 4	November 6	1:00 PM to 1:25 PM	Skiles 254
Make up Midterm 2	November 13	1:00 PM to 2:15 PM	Skiles 254
Make up Quiz 5	December 4	1:00 PM to 1:25 PM	Skiles 254
Make up final exam	December 18	11:20 AM to 2:10 PM	Skiles 254