

MATH 6701 Syllabus

Mathematical Methods of Applied Sciences I, section A, 3 credits

Summer 2026

Instructor Information

Instructor: Guillermo Goldsztein

Email: gg64@gatech.edu

General Course Information

Description

Review of linear algebra and ordinary differential equations, brief introduction to functions of a complex variable.

Course Learning Outcomes

Upon successful completion of this course, you should be able to:

- solve linear systems of equations
- apply Gram-Schmidt to a basis
- find the orthogonal projection of a vector onto a subspace
- find the least square solution of an overdetermined system of equations
- solve a system of linear differential equations
- find and classify fixed points of autonomous systems of differential equations
- compute integrals using residues

Required Course Materials

None

Grading Policy:

There will be three exams. Exams 1 and 2 will be in person, during lecture time, in the lecture room. Exam 3 will be a take-home exam.

Exam 1 on June 22

Exam 2 on July 15

Exam 3 due on August 3rd (upload in Canvas)

Description of Graded Components

Exam 1 is worth 35% of the grade

Exam 2 is worth 35% of the grade

Exam 3 is worth 30% of the grade

To get an A you need 90% of the overall grade. To get a B you need 75% and to get a C you need 60%

Course Policies

Attendance and/or Participation

No attendance nor participation required

Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Review [Georgia Tech's Honor Code](#) and the student [Code of Conduct](#).

Any student suspected of cheating or plagiarism on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

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

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. [The Student-Faculty Expectations](#) articulate some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.

Campus Resources for Students

Graduate Student Academic and Professional Success Resources:

A list of resources for graduate students is given on the [Office of Graduate and Postdoctoral Education](#) website. Specific information for [current graduate students](#) includes

- [Academic Resources](#) such as the Communications Center, Language Institute, Library, Catalog, Registrar, resources for conducting research, Advocacy and Conflict Resolution resources, and how to manage unexpected situations that may impact your academic performance;
- [Student Resources](#) such as Campus Services, Child Care/Family programs, Health & Wellness, Career Services, and the Student Resource Guide; and
- [Professional Development](#) such as *the programming from the Career Center and other professional development resources and events*

Student Well-Being:

At Georgia Tech, we are concerned about your overall physical, social, and mental well-being. A [comprehensive list](#) of wellness related resources has been compiled and maintained by the Office of the Vice President for Student Engagement and Well-being ([student-resource-guide \(gatech.edu\)](#))