

Syllabus, Math 1553 (Introduction to Linear Algebra), Summer 2022

Note: the syllabus and course schedule are subject to change. Any changes to the syllabus and/or course schedule after the semester begins will be relayed to the students in class and through e-mail.

Textbook

The primary textbook for this course is *Interactive Linear Algebra* by Dan Margalit and Joseph Rabinoff.

There is also an optional reference textbook: *Linear Algebra and its Applications*, 5th edition, by Lay-Lay-McDonald, which you can view online if you purchase access to MyMathLab. See the final page of the syllabus and [here](#) for more details.

Common website

The [common website](#) for Math 1553 contains much of the information found in this PDF and links to resources.

Course-level learning goals

By the end of this course, it is expected that students will be able to do the following.

- A) Solve systems of linear questions.
- B) Solve eigenvalue problems.
- C) Analyze mathematical statements and expressions (for example, to assess whether a particular statement is accurate, or to describe solutions of systems in terms of existence and uniqueness).
- D) Write logical progressions of precise mathematical statements to justify and communicate your reasoning.
- E) Apply linear algebra concepts to model, solve, and analyze real-world situations.

Students are expected, at a minimum, to be able to do all problems from lecture and homework (and similar problems) on quizzes and exams. For more, see the portion of the common website that discusses [how to succeed in this course](#).

Course information posted online, and Piazza

Materials will be posted on Canvas, and you are responsible for obtaining any announcements or materials on Canvas.

We have a common Piazza forum to facilitate discussion. You can access it by clicking the “Piazza” tab at the left side of our common Canvas site. It should ask you to register when you click the link the first time.

Homework

Homework will be done online through WeBWorK, accessed through Canvas. Homework will be due weekly. Often, more than one assignment will be due in a given week. The warmup assignment for the first week of class on WeBWork is just for practice and will not be graded.

Homework will generally be due at **11:59 PM on Tuesdays and Thursdays**.

A combined score of **80% homework grade** scores will count as full credit for the homework portion of your course grade; additional points over the 80% cap will not be counted. *No late homework will be accepted.* If you miss any points on a homework or have to miss an assignment for any reason, simply make up the lost points on a different homework assignment in order to get to the 80% cap.

Quizzes, Exams, and regrades

Starting the third week, we will have a 15 minute proctored quizzes in studio (see the [course schedule](#) for dates). The quiz will be administered in studio, and will usually be one or two simple questions about the material covered recently. Students not attending the entire studio will receive a zero on the quiz that day.

A combined score of **80% quiz grade** will count as full credit for the quiz portion of your course grade; additional points over the 80% cap will not be counted. Quizzes are **not eligible** for regrade requests; if you miss a quiz or lose points on a question, please try to make up the lost points on a future quiz to get to the 80% cap. No books, notes, calculators, cell phones, or other electronic devices are allowed during quizzes and exams.

We will have three exams, in studio at 12:30-1:25 PM EST Atlanta time on the following dates:

1. Thursday, June 23
2. Thursday, July 7
3. Thursday, July 21

Cumulative Final exam: Friday, July 29, from 11:20 AM - 2:10 PM EST Atlanta time.

Some important notes regarding all exams:

1. Each midterm exam **must be taken proctored in studio 12:30-1:25 PM Atlanta time** on its given date. Similarly, the final exam must be taken during the final exam period of 11:20 AM - 2:10 PM on Friday, July 29.
2. No notes, textbook, phones, or calculators allowed during quizzes or exams.
3. Regrade requests on exams must be submitted through Gradescope within **one week** of grades being released. Only problems graded **incorrectly** are eligible for a regrade request; please check your answer with the key and indicate which rubric item was not applied correctly in your request. Questions about the rubric should be submitted through email only.

For the full final exam schedule, see [the registrar's schedule](#).

[Only under extreme extenuating circumstances](#) will you be able to take the final exam at a different time or date. Early travel plans (including already-purchased tickets) are **not** an acceptable reason for this.

Students with Disabilities and/or in need of Special Accommodations

Georgia Tech complies with the regulations of the Americans with Disabilities Act of 1990 and offers accommodations to students with disabilities. If you are in need of classroom or testing accommodations, please make an appointment with the Office of Disability Services to discuss the appropriate procedures. More information is available on their [website](#). Please also make an appointment with your instructor to discuss your accommodation, if necessary.

The Honor Code and Academic Dishonesty

Do not cheat! Abide by the [honor code](#) at all times. See <http://honor.gatech.edu>.

Any evidence of cheating or other violations of the Georgia Tech Honor Code will be submitted directly to the Office of Student Integrity. Cheating includes, but is not limited to:

1. Using a calculator, books, or any form of notes on quizzes or tests.
2. Copying directly from any source, including friends, classmates, tutors, internet sources (including Reddit, Chegg, or Wolfram Alpha), or a solutions manual.
3. Allowing another person to copy your work.
4. Taking a test or quiz in someone else's name, or having someone else take a test or quiz in your name.
5. Asking for a regrade of a paper that has been altered from its original form.

We catch many cheaters every year. Don't do it!

Missed work policy

You may only receive credit for missed quizzes or exams in the following circumstances.

- **University-approved absence:** Please give your instructor notice as soon as possible once your absence has been approved.
- **Religious holiday:** You must **notify your instructor** in advance of any classes (including studio) you will miss due to religious holidays.
- **Illness:** Except under extenuating circumstances, you must **notify your instructor *in advance*** and notify the Office of the Dean of Students if you will miss a quiz or exam, so that they can confirm it with your instructor.
- In case of a **family emergency**, please have your **academic advisor or the Dean's office** contact your instructor.

Otherwise, missed quizzes and missed exams result in a 0.

If you will miss an **exam**, then you must **notify your instructor *in advance*** and provide any necessary documentation to the Dean's office so that they may contact your instructor with verification.

In the case of an excused absence for a quiz, you may be able to take a makeup quiz if this makeup occurs within a short timeframe of the quiz itself. Otherwise, the next quiz will count double. If you have an excused absence for an exam, then you may take a makeup exam on the Monday immediately following the exam. If this is not possible, then the weight for that exam will be shifted equally to your remaining exams (including the final exam).

Grade breakdown

The components of the class are weighted as follows:

- 12% Homework (**80% cap needed for full credit**)
- 6% Class participation, as measured by responses to attendance poll questions (**80% cap needed for full credit**)
- 12% Quizzes (**80% cap needed for full credit**)
- 20% Midterm with best score
- 15% Midterm with middle score
- 15% Midterm with lowest score
- 20% Final exam

Grade assignments

After *all* grades are in and all overall percentage scores for students have been computed using the weights described above, grades are assigned. The standard cutoffs are as follows.

A: [90%, 100%] B: [80%, 90%) C: [70%, 80%) D: [60%, 70%) F: [0%, 60%)

So, to guarantee an A, get 90% or better overall. (90 means 90, not 89.9)

To guarantee at least a B grade, get 80% or better overall, etc.

These cutoffs *might* be adjusted, but only in the downward direction (to make letter grades higher). In the event of a curve, only your final overall percentage grade for the course will be curved. Individual assessments *will not be* curved as we go along.

Extra credit, calculators, and entered grades on Canvas

1. There is **no extra credit**, except possibly in the form of a bonus question on an exam (if your instructor decides to add one). There are also no quiz re-takes or exam re-takes.
2. You can use calculators to check your computations when doing homework. You are **NOT allowed to use a calculator** on quizzes or exams.
3. Once a quiz or exam has been graded, the grades will be entered on Canvas. Please check that the grade on your assessment matches the grade recorded on Canvas. If it does not, you must contact your instructor within one week of the assessment to correct the error.

Email policy

For questions relating to course structure, please check the syllabus first. Exam dates, policies, etc. are available on the syllabus.

No math discussion by email. Let's discuss mathematics on Piazza instead! This will open the question to the entire class, including all TAs, and other students who may be able to provide insight. We can also discuss questions during office hours, or at a scheduled appointment outside of office hours.

Additional resources and tutoring

The [Math Lab](#) offers tutoring, and there is also free **1-to-1 tutoring**. If appointments are full when you are available, you may request additional tutoring. We also have **PLUS sessions**. A comprehensive list of tutoring resources is available at <https://www.success.gatech.edu>.

Waitlists, Registration, Permits, etc.

Instructors are not authorized to do anything regarding class registration. They cannot issue permits, remove students from waitlists, etc. For guidelines on such matters, please consult <https://math.gatech.edu/permits-and-waitlists>.

Attendance in Lecture and Studio

All lectures and studios for the first two weeks of class will be held synchronous-remotely, and students are expected to attend these remote sessions online at the lecture/studio time. **Attendance is recorded using attendance polls that account for 6% of your course grade.** Attendance polls will be given every lecture and studio, unless there is a midterm or quiz in studio that day, and the poll will be a **short question on the topics that will be covered that day** so you need to **read ahead** for that day in order to be prepared for lecture or studio and get full credit on the attendance poll, please see the [course schedule](#) for the topics - if there is a quiz that day then the quiz sections will be the topics covered for the attendance poll. The poll will be graded on a 2-point scale: 2pt correct, 1pt incorrect, 0pt no submission due to missing that day of studio/lecture. If you take the poll but **do not stay for the entire period** of lecture or studio, you will receive a zero on the poll for that day.

An accumulated total score of **80% attendance grade** will count as full credit for the attendance portion of your course grade; additional points over the 80% cap will not be counted. Attendance polls are **not eligible** for regrade requests; if you miss a poll for any reason or lose points on an attendance poll, please make up the lost points on a future poll.

Georgia Tech Resources for Personal Support

The Office of the Dean of Students: 404-894-6367; Smithgall Student Services Building 2nd floor. You also may request assistance [here](#).

Counseling Center: 404-894-2575; Smithgall Student Services Building 2nd floor

Services include short-term individual counseling, group counseling, couples counseling, testing and assessment, referral services, and crisis intervention. Their website also includes links to state and national resources. Students in crisis may walk in during business hours (8am-5pm, Monday through Friday) or contact the counselor on call after hours at 404-894-2204.

Students' Temporary Assistance and Resources (STAR) Can assist with interview clothing, food, and housing needs.

Stamps Health Services: 404-894-1420; Primary care, pharmacy, women's health, psychiatry, immunization and allergy, health promotion, and nutrition

OMED: Educational Services

Women's Resource Center: 404-385-0230

LGBTQIA Resource Center: 404-385-2679

Veteran's Resource Center: 404-385-2067

Georgia Tech Police: 404-894-2500

Statement of Intent for Inclusivity

As members of the Georgia Tech community, we are committed to creating a learning environment in which all of our students feel safe and included. Because we are individuals with varying needs, we are reliant on your feedback to achieve this goal. To that end, we invite you to enter into dialogue with us about the things we can stop, start, and continue doing to make the classroom an environment in which every student feels valued and can engage actively in our learning community.