

SYLLABUS MATH 1113: Pre-Calculus**Lecture and Studio: In-Person**

This course will consist of fully in-person lectures and studio classes.

Instructor and Contact Information

Instructor: Stephanie Reikes

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Office: Skiles 228

Office Hours: Will be updated in Canvas.

General Information

Course Number and Title: MATH 1113, Pre-Calculus

Course Institution: Georgia Institute of Technology

Course Meeting Times: Tuesday/Thursday, A: 8:00-9:15am, and G: 12:30-1:45pm

Credit Hours: 4

Semester: Fall 2026

Course Location: Will be determined by Georgia Tech and found in <https://oscar.gatech.edu/>

Course Description

Course designed to introduce and solidify the concepts needed for calculus. Topics include properties of real numbers, functions, polynomial, rational and trigonometric, systems of equations and equalities as well as with expressions involving exponential and logarithmic functions.

Course Learning Objectives

- 1) Identify and apply basic skills such as adding/subtracting, fractions, order of operations, multiplying, and factoring throughout the course
- 2) Solve linear, quadratic, exponential, logarithmic and trigonometric equations
- 3) Compare functions and their inverses
- 4) Graph polynomial, rational and trigonometric functions

Course Content

- 1) Two Units of Algebra Skills
 - o Main Topics: Exponent Rules, Quadratics, Graphing Polynomials & Rational Functions
- 2) Two Units of Trigonometry Skills
 - o Main Topics: Trig Functions, Unit Circle, Graphing Trig Functions & Solving Trig Equations

Course Materials

Course Website: Canvas (*required*)

Textbook: Precalculus: A Unit Circle Approach, by, Ratti and McWaters (optional)

Course Expectations

As your instructor, my role is to prepare you for future math courses at Georgia Tech, provide you with ample assignments and assessments to gauge your understanding and knowledge of the subject matter, provide feedback on your performance, and be available for assistance when needed.

As students, you are expected to take your responsibility seriously, attend and participate in all of the class meetings, behave in a respectful manner to your instructor and fellow students at each class meeting, complete all assignments in a timely and professional manner, study the subject matter outside of class time, and ask for help when necessary.

Student-Faculty Expectations guidelines can be found at <http://www.catalog.gatech.edu/rules/22/>.

Course Structure

Lecture will be taught in a “flipped” manor. You will watch the lesson videos for homework before class. I will begin lecture with a brain warm up activity, review the video content, and demonstrate examples. With time remaining in class, I will have you work in small groups to complete the associated Pulse Check. A short knowledge check will be due by 11:59pm on each lesson covered in lecture.

Course Information

Welcome Module: Start of The Semester Survey, Syllabus Quiz, Discussion Post, Selfie Scavenger Hunt, Time Management Quiz, Semester-at-a-Glance. **There will be a 3% per day late penalty applied. No Welcome Module scores are dropped.**

Studio Attendance: Each studio will have associated activities to complete. TA’s will assign points on a 3-point scale towards effort of completion (i.e. completeness, proper use of math notation, and effort). An answer keys will be posted for you to check your work against. I will drop your lowest 3 scores. **No make-ups. Grading will begin week 2 of the semester.**

Buzzers: There will be several “Buzzer” assignments to be completed. The “Buzzer” assignments will be posted on Gradescope. They will comprise of true/false, multiple choice and/or short answer questions. I will drop your lowest 3 scores. (If you are out of town for a school sponsored event, I expect you to still complete the buzzer on time.) **No make-ups. No late Buzzers allowed.**

Knowledge Checks (KC): Each lesson has a short knowledge check. Questions may be asked about content from the lesson videos or lecture classes. These are short graded “quizzes” on each lesson. I will drop your lowest 3 scores. (If you are out of town for a school sponsored event, I expect you to still complete the KCs on time.) **There will be a 3% per day late penalty applied.**

Graphing “Projects” (GP): There will be 4 graphing “project” assignments. Check course calendar for deadlines. **No make-ups. No late Graphing Projects (GPs) allowed.**

Pulse Checks (PC): There will be several “Pulse Check” assignments to be completed during lecture (and/or studio) time. These may be short 1-10 questions – think pop quiz, but less pressure. I will drop your lowest 3 scores. **No make-ups.**

Exams: There will be 4 exams to be completed in-person. The use of 1 index card, size 3' x 5' inches, may be used for each exam. Index cards will be provided to you in class, approximately 1 week before the exam. If you lose the index card, and/or forget it the day of the exam, you will not be permitted to use any other form of a “cheat sheet” during the exam. The cards must be handwritten. You can write anything on it, i.e. definitions, formulas, examples, etc. Exams will be 75 minutes long during lecture class. See calendar for dates.

Final: There will be a comprehensive written final assessment in-person. This will cover all course material. For the final exam, the use of 2 index cards, size 3' x 5' inches, may be used. Index cards will be provided to you in class, approximately 1 week before the exam. If you lose the index cards, and/or forget them the day of the exam, you will not be permitted to use any other form of a “cheat sheet” during the exam. The cards must be handwritten. You can write anything on it, i.e. definitions, formulas, examples, etc. The final exam length will be 2 hours and 50 minutes. The date of the final exam will be determined by the Registrar’s Office and is TBA.

Please see course calendar/Canvas for all due dates.

Showing work is required on all written assignments. As writing mathematics properly is part of learning Pre-Calculus, points will be deducted for incorrect or missing mathematical steps and notation. Problems containing correct answers, but no work will receive 0 points (unless indicated by the directions of the problem).

Extra Credit: Weekly active learning/exam review sessions called “**Sigma Sessions**” will be offered. You can earn **0.75 points per session** you attend toward each exam up to a max of 3 points. Please check in with the TA/LA holding the “**Sigma Session**” to receive your attendance points. The Sigma Sessions Day and Times will be announced and posted in Canvas.

Grading System

Your final grade will be computed as follows:

Welcome Module	1%
Studio Attendance	5%
Buzzers	4%
Knowledge Checks (KCs)	4%
Graphing Projects (GPs)	4% (1% each)
Pulse Checks (PCs)	7%
Exams	60% (15% each)
Final Exam	15%

Note: No exam grades will be dropped.

The standard 10-point scale will be used to assign letter grades, but the cut-offs may be lowered to arrive at a standard distribution for the course:

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

Class Policies

Attendance: You are expected to come prepared and actively participate in every class session. In the event of an absence, you are responsible for all missed materials and any additional announcements or schedule changes given. The instructor is not responsible for re-teaching missed information. Students should refer to the class calendar to know what information was covered while they were not in class. Students are advised to get contact information from a fellow classmate who they can contact if they need to get copies of notes. Students who are absent because of participation in approved Institute activities (such as field trips, professional conferences, and athletic events) will be permitted to make-up exams missed during their absences. Approval of such activities will be granted by the Student Academic and Financial Affairs Committee of the Academic Senate, and statements of the approved absence may be obtained from the Office of the Registrar.

In the event of a medical emergency or an illness that is severe enough to require medical attention, students are responsible for contacting the Office of the Vice President and Dean of Students (Division of Student Life) as soon as possible to report the medical issue or emergency, providing dated documentation from a medical professional and requesting assistance in notifying their instructors.

More information can be found at <http://www.catalog.gatech.edu/rules/4/>

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. All students are expected to comply with the Georgia Tech Honor Code.

Class disruptions of ANY kind will NOT be tolerated and may result in your removal from the classroom.

- **1st interruption = verbal warning**
- **2nd interruption = verbal warning and may be asked to leave the classroom**
- **3rd interruption = verbal warning, may be asked to leave the classroom, and reported to OSI**

Please show courtesy to your fellow classmates and instructor by adhering to the following class rules:

- Turn off and put away all food and electronic devices, unless needed for class.
- Come to class on time and stay for the entire class period. Be engaged, no sleeping allowed.
- Refrain from conversing with your fellow students while the instructor is speaking.
- Put away any reading materials unrelated to the course.
- Students will raise their hand and wait to be addressed before speaking during lecture.

Cheating includes, but is not limited to:

- Using an unapproved calculator, books, etc. on assessments.
- Copying directly from **any** source, including friends, classmates, tutors, internet sources (including Wolfram Alpha, Mathway, ChatGPT, etc.), or a solutions manual.
- Allowing another person to copy your work and/or share work with others.
- Taking an assessment in someone else's name or having someone else take an assessment in your name.
- Asking for a regrade of a paper that has been altered from its original form.
- Using someone else's clicker to gain attendance points or to take quizzes or tests for them or asking someone else to use your clicker for any graded or attendance submission.

Test Day Rules:

- Arrive 10 minutes early to get set up with instructions for the test.
- All backpacks and cell phones (electronic devices) must be left at the front/edge of the classroom.
- Keep eyes on your test and no soliciting for answers.
- No hats or items obstructing your face.
- No cell phones, laptops, smart watches, **calculators** or other electronic devices (you may be asked to remove a watch if the instructor is uncertain whether it is a smart watch).
- Please make sure all items (pencils, pens) needed for exam are out when testing begins. Retrieval of items after test begins is prohibited.
- No communication with other students during test for any reason, which includes verbal, non-verbal and electronic communication.
- Please use the restroom before coming to class. In the event of an emergency, please let the instructor know. You will be asked to leave your exam, cell phone, bag, etc. with the instructor while you leave the room.
- No earphones are allowed.
- Do not bring review pages into the classroom. If you want to review, then do that outside of the classroom. When you enter, all review material should already be put away in your backpack and be ready to take the test.
- Bring Buzz Card ID or Photo ID for verification of your identity

Use of Electronic Devices During Exams

To maintain academic integrity & minimize distractions, the use or possession of unauthorized electronic devices during any exam is strictly prohibited. This includes, but is not limited to, cell phones, smartwatches, tablets, laptops, earbuds, smart glasses & any device capable of storing, transmitting, or receiving data.

Policy Details:

1. **Before the Exam:**
 - All electronic devices must be turned **completely off** (not on silent or airplane mode) and **stored away** in a backpack or bag placed at the front of the room.
 - Devices may **not** be kept on your person (e.g., in pockets, sleeves, or laps).
2. **During the Exam:**
 - Any visible or audible electronic device will be treated as a potential **violation of the academic integrity policy**, regardless of intent or use.
 - Students may not handle or access any device until all exam materials have been submitted and the instructor signals that the exam period has ended.
3. **After the Exam:**
 - Students may retrieve their devices only after leaving the testing area or when instructed to do so by the proctor.

Exceptions:

Students requiring electronic devices for accessibility or medical reasons must coordinate accommodations through the instructor and Office of Disability Services (ODS) prior to the exam date. If no arrangements were made at least 48 hours before the exam, then the above policy will be in effect.

Consequences of Course Violations:

Students caught:

- **cheating or plagiarizing on an assignment, quiz, or assessment**
- **with a cell phone/electronic device during an assessment**

will be reported to the Office of Student Integrity (OSI) as a suspected violation of the Georgia Tech Academic Honor Code. Pending review, a grade of zero may be recorded on the assessment. Violations may result in penalties including a zero on the assessment, failure in the course, and/or additional disciplinary actions. The honor code can be found at <http://www.policylibrary.gatech.edu/student-affairs/code-conduct>.

Re-grading of Papers: If a problem has been graded in error, you must submit a regrade request to me **in writing (or via Gradescope)**, along with your paper, no more than **1 week** after the papers have been returned in class. Should you wish to have your paper regraded, *do not change or add to the work on your paper!* If you must write on your returned paper, be sure to write in a different color ink and clearly indicate what you have added. **Note, when turning in a regrade request, your entire assessment will be subject to regrade, and not a single problem. In addition, a request can result in points being deducted and/or increased from your assessment.**

Make-Ups: Exam make-ups will be allowed for university-sponsored events, illness, and death in the family. To complete a make-up, written documentation from the Office of the Registrar or Division of Student Life must be received. There is a standard make-up time for exams (see calendar). If both the Exam and Make-Up Exam are missed, then your other 3 exams will be averaged to compensate for the missed exam. This is only good for 1 exam. **If more than one exam and make-up exam is missed, then you will receive a zero for subsequent exams missed.**


- Note: There are no make-ups for pulse checks, knowledge checks, buzzers, and graphing projects.

Artificial Intelligence (AI) Policy: The use of Artificial Intelligence (AI) tools (such as ChatGPT, Copilot, or similar programs) must comply with the expectations of academic integrity and the learning goals of this course. Unless explicitly permitted for a specific assignment, students may not use AI tools to generate, edit, or complete any portion of their work. This includes, but is not limited to, producing written responses, solving problems, creating images, or rephrasing text.

If AI use is permitted for an assignment, the following applies:

- You must clearly document how and where AI tools were used.
- You are responsible for verifying accuracy and ensuring all ideas, explanations, and language reflect your own understanding.
- Submitting AI-generated work as your own without disclosure constitutes academic misconduct under institute policy.

In summary:

- You may use AI only when explicitly authorized.
- You may not use AI to generate or edit graded work without permission.
-  When in doubt, ask the instructor before using AI.

Accommodations for Students with Disabilities: Georgia Tech complies with the regulations of the Americans with Disabilities Act and offers accommodations to students with disabilities. If you need classroom or testing accommodations, please make an appointment with disability services to discuss your needs and to obtain an accommodations letter. More information is available on their website, <http://disabilityservices.gatech.edu/>. After your intake appointment is complete, please make an appointment with me to discuss your accommodation and learning needs.

All exam proctoring will be done by myself, or by a faculty approved proctor. The use of the ODS Testing Center will be prohibited in the course.

Accessibility: I am committed to providing both physical accessibility and access to information resources and technologies to individuals with disabilities. The Institute's vision is to create a culture of access for an inclusive learning and working environment. Accessibility ensures that people with disabilities can perceive, understand, navigate, and interact and contribute with the course material and websites. It encompasses all disabilities that affect access, including visual, auditory, physical, speech, cognitive, and neurological disabilities. I am happy to work with you and the Office of Disability Services regarding class materials.

Calculators: While you may need a scientific calculator for help with some of the homework problems, the use of calculators is **NOT ALLOWED** on quizzes or exams. on in-class assignments or assessments.

Announcements: I will frequently update the class pages with class information and materials. *You are responsible for obtaining any announcements or materials placed on Canvas (canvas.gatech.edu).*

Missing Grades: On Canvas, if your grade is not reported, that means I do not have a submission from you for that assignment. If your submission score is listed as “0” or is not posted on Canvas, you will also have one week after papers have been returned to report a missing paper. After that time, hard copies of the papers may be shredded, and any unreported submissions will be scored as a “0”. It is every student’s obligation to check Canvas regularly and report grading errors promptly to their instructor.

Additional Help: *Asking questions is the key to success!* Don’t hesitate to reach out to me via e-mail! Free “walk-in” help is also available Monday-Thursday in the “**Math Lab.**” You can view the schedule at <https://tutoring.gatech.edu/drop-in/>.

Free tutoring is available to all Georgia Tech undergraduate students in-person or online. For more details, visit <https://tutoring.gatech.edu/>.

Additionally, there is 1-on-1 and small group tutoring by UTA’s in the math department. For more details, visit <https://math.gatech.edu/undergraduate/tutors-and-labs>.

Statement of Intent for Inclusivity

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

Important Dates

24 Aug – First Day of Classes

28 Aug – Last day to register, make schedule changes, and/or drop courses without a "W" grade

7 Sept – Labor Day (No Classes)

5 and 6 Oct – Fall Break (No Classes)

31 Oct – Withdrawal Deadline

26-27 Nov – Thanksgiving Break (No Classes)

7 and 8 Dec – Final Instructional Day

9 Dec – Reading Day

10 - 17 Dec – Final Exam Week

Class Mode

Note on class modes regarding weather/illness: The instructors, TAs and LAs hope to provide an in-class experience for students as much as possible this semester. However, at times, it may be necessary for classes to have a substitute, move online or be cancelled due to campus/weather conditions, or illness/isolation of the instructor or TA. We will notify students as soon as possible if any classes will meet online. Any sessions that move online, will use the Zoom platform. We also strongly encourage students who are sick to stay home, so that we can safely continue to offer as many in-person classes as possible. In the event health conditions and/or class mode delivery changes, announcements will be made on the course Canvas page. Updates could include online tests, take home tests, requiring the use of Honorlock proctoring tool, and an additional device containing a webcam for live proctoring.

Campus Resources

In your time at Georgia Tech, you may find yourself in need of support. Below you will find some resources to support you both as a student and as a person.

- Tutoring & Academic Support <http://tutoring.gatech.edu>
 - Knack Tutoring
 - Peer-Led Undergraduate Study (PLUS)
 - Commons/Drop-In Tutoring (Including the Math Lab)
- Communication Center <http://www.communicationcenter.gatech.edu>
 - Individualized help with writing and multimedia projects
- Academic Success and Advising <https://www.success.gatech.edu/>
- The Office of the Dean of Student <https://studentlife.gatech.edu/>
- Center for Mental Health Care and Resources <https://mentalhealth.gatech.edu/>
- Students' Temporary Assistance and Resources (STAR) <https://star.studentlife.gatech.edu/>
 - Can assist with interview clothing, food, and housing needs.
- Stamps Health Services: <https://health.gatech.edu>
 - Primary care, pharmacy, women's health, psychiatry, immunization and allergy, health promotion, and nutrition
- Georgia Tech Police; **404-894-2500**

Tentative Course Calendar

Please use this as an approximate class schedule; section coverage may change depending on the flow of the course.

Monday	Tuesday	Wednesday	Thursday	Friday
8/24 Studio Introductions	8/25 Syllabus Day	8/26 Studio Pre-Test	8/27 A.1, A.2	8/28
8/31 Studio: Worksheet Buzzer #1 Due KCs Due	9/1 A.6, A.8 KCs Due	9/2 Studio: Worksheet Buzzer #2 Due Welcome Module Due	9/3 1.1, 1.2 KCs Due	9/4 Buzzer #3 Due
9/7 Holiday – No Classes	9/8 1.3, 1.4 KCs Due	9/9 Studio: Worksheet Buzzer #4	9/10 1.5, 1.6 KCs Due	9/11 Buzzer #5 Due
9/14 Studio: Worksheet	9/15 1.7, 7.1 KCs Due	9/16 Studio: Worksheet Buzzer #6 Due	9/17 Exam Review	9/18
9/21 Studio: Exam Review	9/22 EXAM #1	9/23 Studio: Extra Credit	9/24 2.1, 2.2 KCs Due	9/25 Buzzer #7 Due
9/28 Studio: Worksheet	9/29 2.3 KCs Due (Make-Up Exam #1 at 11am)	9/30 Studio: Worksheet Buzzer #8 Due	10/1 2.4 KCs Due	10/2 Buzzer #9 Due
10/5 Fall Break – No Classes	10/6 Fall Break – No Classes	10/7 Studio: Worksheet	10/8 3.1, 3.2 GP #1 Due	10/9 Buzzer #10 Due
10/12 Studio: Worksheet	10/13 3.3, 3.4 GP #2 Due KCs Due	10/14 Studio: Worksheet Buzzer #11 Due	10/15 Exam Review	10/16
10/19 Studio: Exam Review	10/20 EXAM #2	10/21 Studio: Extra Credit	10/22 4.1, 4.2, 4.3 KCs Due	10/23 Buzzer #12 Due
10/26 Studio: Worksheet	10/27 4.4 KCs Due (Make-Up Exam #2 at 11am)	10/28 Studio: Worksheet Buzzer #13 Due	10/29 4.5 KCs Due	10/30 Buzzer #14 Due
11/2 Studio: Worksheet	11/3 4.6 KCs Due GP #3 Due	11/4 Studio: Worksheet Buzzer #15 Due	11/5 Exam Review GP #4 Due	11/6
11/9 Studio: Exam Review	11/10 EXAM #3	11/11 Studio: Extra Credit	11/12 5.1, 5.2 KCs Due	11/13 Buzzer #16 Due
11/16 Studio: Worksheet	11/17 5.3, 5.4 KCs Due (Make-Up Exam #3 at 11am)	11/18 Studio: Worksheet Buzzer #17 Due	11/19 5.5 KCs Due Buzzer #18 Due	11/20 Buzzer #19 Due
11/23 Studio: Worksheet	11/24 5.5 Cont.	11/25 Thanksgiving Break – No Classes	11/26 Thanksgiving Break – No Classes	11/27 Thanksgiving Break – No Classes
11/30 Studio: Worksheet Buzzer #20 Due	12/1 Exam Review	12/2 Studio: Exam Review	12/3 EXAM #4	12/4
12/7 Studio: Extra Credit	12/8 Final Exam Review (Make-Up Exam #4 at 11am)	12/9 No GT Classes – Reading Day	12/10	12/11
12/14	12/15	12/16	12/17	12/18

Please note: Items are subject to change. Any changes to the syllabus and/or course schedule will be relayed to the students in class and through Canvas.