

SYLLABUS MATH 1113: Pre-Calculus

Lecture: In-Person
Studio: In-Person

This course will consist of fully in-person lectures and studio classes. You are expected to attend all scheduled sessions. Lecture will be taught in a “flipped” manner. 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 daily activity. Any problems not completed from daily activity will become “homework.” A short knowledge check will be due by 11:59pm on each lesson covered in lecture.

In addition to having a TAs for this course, the Tutoring & Academic Support department will provide you with a Learning Assistant (LA) this semester. The LAs are students who will help facilitate active learning & collaborative instruction during studio class time. For more details, visit <https://tutoring.gatech.edu/>.

Note on class modes and the COVID-19 pandemic: The instructors and TAs 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 a rise in COVID-19 cases on campus, 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.

Instructor and Contact Information

Instructor: Sal Barone

E-mail: sbarone@math.gatech.edu

Office: Skiles 013

Teaching Assistants (TAs):

- Studio A01/SF1: Caroline Gerage

Learning Assistants (LAs):

- Lecture A: Joshua (Taylor) Allen, jallen390@gatech.edu

General Information, Course Description and Learning Objective

Course Institution: Georgia Institute of Technology

Course Title: MATH 1113, Pre-Calculus

Course Lecture Meeting Time and Location: MWF 12:30-3:15pm, Howey-Physics N210

Studio Meeting Times and Location: TR 12:30-3:15pm, Howey-Physics N210

Description: Course designed to introduce and solidify the concepts needed for a first calculus course. 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.

Learning Objectives:

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

Course Text

Optional Text: This course follows *Precalculus: A Unit Circle Approach*, Third Edition by *Ratti and McWaters*. MyMathLab contains an electronic version of the textbook with homework problems. You can optionally purchase it separately, on-line, or packaged with the hard copy textbook. We will cover most of chapters A, 1-5, 7.1. **However, no textbook purchase is required for this course.**

Course Websites

Course Information: <http://www.canvas.gatech.edu/> (*required*)

Sal's Webpage: <http://sbarone7.math.gatech.edu/math1113su24.html> (*optional*)

Optional Textbook/Homework Access: <http://www.mymathlab.com> (*optional*)

Course Name: Math 1113: Pre-Calculus (Summer 2024)

Course ID: N/A, *access the MyMathLab course through the Canvas "Access Pearson" tab*

Course Information

Classwork bucket points (CPs): You are required to attend all lecture/studio meetings and attend at least 4 office hours this semester. For completing class work you will receive classwork points "CP points". There is a total of **252CP** classwork points available this semester, but anything over **168CPs** (66%) is extra credit and is converted to a final exam bonus: the conversion is 1CP=0.03% added to the final exam score for a maximum bonus of 2.52% added if you complete every CP assignment with full credit. Check Canvas for CP due dates.

Office Hours Requirement (CPs): You are required to attend at least 4 office hours this semester (1 before each unit exam). You can attend an office hour from the instructor, TA or LA to meet this requirement. Each office hour is worth 3CP for a total of **12CP**. During this hour, you may bring questions and go over class material. You must stay at least 45 minutes to earn credit. One office hour **per unit** is required for CP credit.

Buzzers (CPs): There will be several "Buzzer" assignments to be completed during each studio class time. The "Buzzer" assignments will be posted on Gradescope. They will comprise of true/false, multiple choice and/or short answer questions. Each buzzer ranges from 3pt to 10pt, and to convert the Canvas points to CPs you just divide by 3. There are 183pt total showing in Canvas so there are $180/3=61$ CP total for the semester.

Knowledge Checks “KC” in Canvas videos (CPs): Each pre-lecture video 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. Each KC ranges from 2pt to 7pt, and to convert the Canvas points to CPs you just divide by 3. There are 144pt total showing in Canvas so there are $144/3=48\text{CP}$ total for the semester.

Quizzes (CPs): Quizzes will be 20 min proctored in studio on non-exam days. Quizzes are graded on score, not completion. There are five quizzes, and they will each be 2-5 questions and worth 20CP for a total of **100CP**.

Lecture Activities (CPs): There are lecture activities for each section covered in lecture, which will be due by 12pm the following meeting day. Students must complete the lecture activity at home for any portion which is not finished during lecture. Each lecture activity is worth 3CP for a total of 93pt total showing in Canvas so there are $93/3=31\text{CP}$ total for the semester.

Graphing “Projects” (CPs): There will be between zero and four graphing project assignments, as needed and if time allows. Check Canvas announcements or Piazza for details. The total CPs available 252CP and the cap needed for full credit 168CP will not be changed even if we give optional graphing projects this semester.

*Note: There are no regrade requests and no make-ups for any assignment in the CP category. If you miss any points in any assignment in the CP category, then please make up the missing points by completing other CP assignments. So long as you get at least **168CP** by the end of the semester you will get full credit for the Classwork bucket points (CPs) portion of your course grade.*

Exam: There will be 4 exams to be completed during studio class time in-person.

Final: There will be a comprehensive written final assessment. This will cover all course material.

MyMathLab Homework (OPTIONAL): Homework assignments may be optionally completed online using the MyMathLab portal for extra practice. Homework will not be a graded component of your final grade this semester. No CPs or extra credit will be given for completion of any MyMathLab work – this is just for extra practice if you are interested.

Grading System

Your final grade will be computed as follows:

Classwork bucket points (CPs)	20%
Midterm Exams	60% (15% each)
Final Exam	20%

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%)
S: [70%, 100%]; **U:** [0, 70%)

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.

Note: No exam grades will be dropped.

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.

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.

Make-up Exams: Any student who is unable to attend one midterm exam, with reasonable explanation, might have an opportunity to take a make-up.

- Students who miss a single midterm exam for any reason must notify their instructor in advance and as soon as possible to make necessary arrangements. With rare exceptions acceptable reasons for missing an exam are limited to illness, family emergency, court appearance, and taking part in Georgia Tech events.
- Students who will miss a midterm or final exam due to a university-sponsored event or athletics must provide their instructor with the official documentation in advance.
- Make up midterms are always at 11:00am on the Tuesday following the midterm exam. Situations where it is not possible to take the make-up are handled on a case-by-case basis. The student might be given an EX (excused) grade in the Canvas Gradebook and the average of the remaining midterms will be used for the corresponding portion of their final grade - see below for more details.

*Note: There are no make-ups for anything in the CP category: knowledge checks, buzzers, or quizzes.

Note regarding Dean of Students letters: Please do not contact the Dean of Students unless asked for routine illness requiring a make-up exam. We will be flexible to allow one make-up exam per student this semester. Any student who is ill for both the regularly scheduled exam and the make-up exam will be given an excused score - the midterm score will be replaced by the average of the other two midterm exam scores - but only if both (1) the student's condition is severe enough to warrant missing both the regular exam and the make-up exam which are six days apart, and (2) there is an accompanying letter from the Dean of Students requesting special consideration. Students will not be permitted to take more than one make up exam in any circumstances, even if you are sick. In the case you miss two exams, the second exam will be given a score of zero, so please do not request a make-up exam unless you are really unable to attend the exam.

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.

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.
- 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.
- No sleeping allowed.
- Light snacks only.

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, etc.), or a solutions manual.
- Allowing another person to copy your work and/or sharing 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.

Test Day Rules:

- Arrive 10 minutes early to get set up with instructions for the test.
- Keep eyes on your test and no soliciting for answers.
- 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). Students caught with any electronic device may receive a zero on their test.
- Please make sure all items (scratch paper, 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 and leave your exam, cell phone, bag, with the instructor when you leave the room.
- No earphones are allowed.
- Bring Buzz Card ID or Photo ID for verification of your identity

The honor code can be found at <http://www.policylibrary.gatech.edu/student-affairs/code-conduct>. **Any student suspected of cheating or plagiarizing on an assignment, quiz, or assessment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.**

Re-grading of Papers: If a problem has been graded in error, you must submit a regrade request to me **via Gradescope** no more than **1 week** after the grades have been returned. Should you wish to have your problem regraded, be sure to indicate which rubric item was not correctly applied as part of your request.

Note: a regrade request can result in points being deducted and/or increased from your assessment.

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/>. Please also make an appointment with me to discuss your accommodation and learning needs.

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

Missing Grades: On Canvas, if your grade is not reported, that means we 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 a key to success!* Free “drop-in” help is available in the **Math Lab**. The Math Lab is staffed by math Graduate Teaching Assistants (GTAs) in Clough 280. A live schedule can always be found on the Tutoring & Academic Support website: <https://tutoring.gatech.edu/drop-in/>.

CIOS Incentive

To help encourage students to complete the CIOS survey, if the completion rate is above 85% for the entire class by the end of the semester, then 2% will be added to the final exam score for the entire class.

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

Jun 24 First day of classes

Jun 29 Last day to drop without a "W"

Jul 2 **Exam 1**

Jul 4-5 Fourth of July (no class)

Jul 11 **Exam 2**

Jul 16 Withdrawal Deadline

Jul 18 **Exam 3**

Jul 24 **Exam 4**

Jul 25 Last day of lecture/studio

Jul 26-28 Reading period (no exams)

July 29 FINAL EXAM 11:20am - 2:10pm

Campus Resources for Students

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.

Academic Support

- Tutoring & Academic Support, <http://tutoring.gatech.edu>
 - 1-to-1 tutoring
 - Peer-Led Undergraduate Study (PLUS)
 - Commons/Drop-In Tutoring (Including the Math Lab)
- Undergraduate Advising & Transitions, <http://advising.gatech.edu/coaching>
 - Academic Coaching
 - Exploratory Advising
- Residence Life's Learning Assistance Program, <https://housing.gatech.edu/learning-assistance-program>
 - Drop-in tutoring for many 1000 level courses
- OMED: Educational Services, <http://omed.gatech.edu/programs/academic-support>
 - Group study sessions and tutoring programs
- Communication Center, <http://www.communicationcenter.gatech.edu>
 - Individualized help with writing and multimedia projects
- Academic advisors for your major, <http://advising.gatech.edu/>

Personal Support

Georgia Tech Resources

- The Office of the Dean of Students: <http://studentlife.gatech.edu/content/services>; **404-894-6367**; Smithgall Student Services Building 2nd floor
 - You also may request assistance at https://gatech-advocate.symphlicity.com/care_report/index.php/pid383662?
- The Center for Assessment, Referral and Education (CARE): care.gatech.edu; **404-894-3498**
- Counseling Center: <http://counseling.gatech.edu>; **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): <http://studentlife.gatech.edu/content/need-help>
 - Can assist with interview clothing, food, and housing needs.
- Stamps Health Services: <https://health.gatech.edu>; **404-894-1420**
 - Primary care, pharmacy, women's health, psychiatry, immunization and allergy, health promotion, and nutrition
- OMED: Educational Services: <http://www.omed.gatech.edu>
- Women's Resource Center: <http://www.womenscenter.gatech.edu>; **404-385-0230**
- LGBTQIA Resource Center: <http://lgbtqia.gatech.edu/>; **404-385-2679**
- Veteran's Resource Center: <http://veterans.gatech.edu/>; **404-385-2067**
- Georgia Tech Police; **404-894-2500**

Tentative Course Schedule

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

Monday	Tuesday	Wednesday	Thursday	Friday
6/24 A.1, A.2, A.6, A.8 KCs Due	6/25 Buzzers (ChA) Quiz #1 (ChA)	6/26 1.1, 1.2, 1.3 KCs Due	6/27 Buzzers (1.1-1.3) Quiz #2 (1.1-1.3)	6/28 1.4, 1.5, 1.6 KCs Due
7/1 1.7, 7.1 KCs Due	7/2 Buzzers (1.4-1.7, 7.1) Review Exam 1 (ChA, Ch1, 7.1)	7/3 2.1, 2.2, 2.3 KCs Due	7/4 No Classes	7/5 No Classes
7/8 2.4, 3.1, 3.2 KCs Due	7/9 Buzzers (Ch2, 3.1-3.2) Quiz #3 (Ch2, 3.1-3.2)	7/10 3.3, 3.4, Review KCs Due	7/11 Buzzers (3.3-3.4) Review Exam 2 (Ch2, Ch3)	7/12 4.1, 4.2, 4.3 KCs Due
7/15 4.4, 4.5 KCs Due	7/16 Buzzers (4.1-4.5) Quiz #4 (4.1-4.5)	7/17 4.6, Review KCs Due	7/18 Buzzers (4.6) Review Exam 3 (Ch4)	7/19 5.1, 5.2, 5.3, 5.4 KCs Due (5.1 only)
7/22 5.2, 5.3, 5.4 (con't) KCs Due	7/23 Buzzers (5.1-5.4) Quiz #5 (5.1-5.4)	7/24 5.5, Review KCs Due	7/25 Buzzers (5.5) Review Exam #4 (Ch5)	7/26 Reading Day (No Classes)
7/29 Final Exam 11:20am-2:10pm	7/30 _____	7/31 _____	8/1 _____	8/2 _____

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