# MATH 1712 Syllabus

Survey of Calculus, Section A, 3 credits
Fall 2026

## Instructor Information


| Instructor | Email address: |
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## General Course Information

### Description

**Course Number and Title:** MATH 1712, Survey of Calculus

**Prerequisites:** Math SAT score of 570, ACT 24, or MATH 1113 Precalculus

An overview of key concepts in calculus. Topics include: functions, the derivative, applications of the derivative, techniques of differentiation, integration, applications of integration to probability and statistics, and multidimensional calculus.

### Course Learning Outcomes

- Students will analyze functions and their properties in preparation for calculus.
- Students will compute derivatives using rules of differentiation and interpret them geometrically and in applied contexts.
- Students will apply derivatives to solve optimization, related rates, and other application problems.
- Students will compute indefinite and definite integrals using basic integration techniques.
- Students will apply integration to problems in probability, statistics, and other applied settings.
- Students will extend key concepts of calculus to functions of several variables.
- Students will use appropriate mathematical notation throughout all course topics.

### Required Course Materials

**Textbook:** Bittinger, *Calculus and Its Applications,* 12th ed.

MyLab is required and includes an electronic version of the textbook. Access MyLab directly through Canvas — no course ID needed. A MyLab access code may be purchased from the bookstore or online.

### Grading Policy

The final grade will be determined using the following weightings:

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| MyLab Homework: | 10% |
| Quizzes: | 20% |

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| Midterm Exams (average of 3): | 45% |
| Final Exam: | 25% |
| Studio Participation: | up to 2% extra credit |

Letter grades: A: 90–100, B: 80–89, C: 70–79, D: 60–69, F: 0–59.

An Incomplete ('I') is assigned only when a student was making satisfactory progress but was unable to complete the course for non-academic reasons beyond their control and deemed acceptable by the instructor.

### Description of Graded Components

**MYLAB HOMEWORK:** Weekly homework assignments are completed online through MyLab. Assignments are due Tuesdays at 11:59 pm. Any deadline changes will be communicated via Canvas.

**STUDIO PARTICIPATION:** Your TA will assess participation based on attendance and effort during studio sessions. A score of 0–2 will be assigned at the end of the semester and added to your final average as extra credit.

**QUIZZES:** Six quizzes will be administered during the last 20 minutes of studio sessions on Wednesdays. There are no quizzes during exam weeks. The lowest quiz score will be dropped.

**MIDTERM EXAMS:** There will be three in-person midterm exams administered during the lecture period. More details can be found on Canvas.

**FINAL EXAM:** The final exam is comprehensive and mandatory. More details can be found on Canvas.

*Please note: items on the syllabus are subject to change. Any changes will be communicated in class and on Canvas.*

## Course Policies

### Attendance and Participation

You are expected to come prepared and actively participate in every lecture and studio session. In the event of an absence, you are responsible for all missed material, assignments, and announcements made in class.

Examinations and quizzes will be administered in-person and on-campus only. Exam make-ups will only be provided for excused absences (Georgia Tech-sponsored events or documented illness). To qualify, contact the Office of the Vice President and Dean of Students as soon as possible with dated documentation from a medical professional. Travel is not an acceptable reason to miss an exam.

### Regrades

Regrade requests must be submitted in writing within one week after graded work is returned, along with the original paper. Do not alter your paper before submitting a regrade request. Requests will only

be considered when something correct has been marked incorrect; check the posted solutions before submitting.

### 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 at www.honor.gatech.edu.

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 and identify the appropriate penalty for violations.

### Core IMPACTS

**This is a Core IMPACTS course in the STEM area.**

Core IMPACTS provides students with essential knowledge in foundational academic areas. This course supports the orienting question: How do I ask scientific questions or use data, mathematics, or technology to understand the universe? Upon completion, students will use mathematical and computational methods to analyze data, solve problems, and explain natural phenomena. Career-ready competencies developed include Inquiry and Analysis, Problem-Solving, and Teamwork.

### 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 needs and obtain an accommodations letter. Please also email me as soon as possible 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. I encourage you to remain committed to the ideals of Georgia Tech while in this class.