Introduction to Differential Calculus

Last Updated: Mon, 07/28/2025

Course prefix: MATH

Course number: 1550

Section: R

CRN (you may add up to five):
89238

Instructor First Name: Sierra

Instructor Last Name: Knavel

Semester: Fall

Academic year: 2025

Course description:

An introduction to differential calculus including the theory of limits for functions and sequences.

Course learning outcomes:

- Students can make sense of mathematical expressions and graphs involving functions and their derivatives.
- Students will be able to compute mathematical quantities using differential calculus and interpret their meaning.
- Students will be able to analyze mathematical statements and expressions.
- Students will be able to write and communicate your mathematical reasoning effectively.
- Students will be able to apply calculus concepts to solve real-world problems such as optimization and related rates problems.

Required course materials:

None

Grading policy:

A: 90% and higher,

B: [80%, 90%),

C: [70%, 80%),

D: [60%, 70%),

F: [0%, 60%)

Syllabus quiz: 2% of final grade

Participation (in-class and via Piazza): 8% of final grade

Homework: 10% of final grade

Tests (5 total tests, lowest grade dropped) totaling 55% of final grade

Final Exam: 25% of final grade

Attendance policy:

You are expected to come prepared and actively participate in the class sessions. In the event of an absence, you are responsible for all missed materials, assignments, and any additional announcements or schedule changes given in class. You are allowed four absences, which should be reserved for illness or other emergencies. If you have five absences, your final grade will be lowered by 10 percentage points (a full letter grade). If you have six unexcused absences, you will receive a grade of ‘F’ in the course.

Class disruptions of ANY kind will NOT be tolerated and may result in your removal from the classroom and/or loss of participation points for that day. Please show courtesy to your fellow classmates and instructor or teaching assistant by adhering to the following class rules:

- Turn off all laptops, cellular phones, and other electronic devices, unless you have a documented need or to use such devices for note-taking, during class.
- Come to class on time and stay for the entire class period.
- Refrain from conversing with your fellow students.
- Put away any reading materials unrelated to the course.

Academic honesty/integrity statement:

Students are expected to maintain the highest standards of academic integrity. All work submitted must be original and properly cited. Plagiarism, cheating, or any form of academic dishonesty will result in immediate consequences as outlined in the university's academic integrity policy.

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

- Using an unapproved calculator, books, or any form of notes on tests.
- Collaborating during an in-person or online test.

- Using any third-party websites (such as, but not limited to, ChatGPT, Symbolab, Integral-Calculator, Chegg and CourseHero) to obtain answers to graded problems.
- Copying directly from any source, including friends, classmates, tutors, internet sources, or a solutions manual.
- Allowing another person to copy your work.
- Taking a test or turning in an assignment in someone else's name or having someone else take a test or turn in an assignment in your name.
- Asking for a regrade of a paper that has been altered from its original form.
- Using someone else’s account to gain attendance or assignment points for them, or asking someone else to use your account for any graded assignment or attendance submission.