University of Connecticut
Mathematics
MATH1131Q Calculus I SEC807 Fall 2026

H.G. Siewert

August 20, 2026

Meeting Times: Friday **10:10am to 12:40pm** ROOM 139

Instructor: H.G. Siewert
Office: ROOM 139
Contact: his11002@uconn.edu
Office Hours: Friday **8:00am to 10:00am** or by appointment

Course Description and Objective

Calculus is the first mathematics class that transitions students into a rigorous treatment of mathematics used across many fields including engineering, physics, economics, the social sciences, and mathematics itself. The subject is divided into the study of its foundational operations with Calculus I mainly discussing differentiation.

In terms of objectives, after successful completion of this course students will be able to:

- Maintain consistent use of algebraic manipulation and order of operations.
- Identify points of continuity of functions.
- compute derivatives of various functions including polynomials, trigonometric functions, exponential functions, and logarithmic functions.
- Apply the Extreme Value Theorem and the Intermediate Value Theorem to compute maximums and minimums of various functions.
- Recognize increasing/decreasing intervals and concavity of intervals of a function's domain.
- Apply derivative computations to optimization problems.

In order to facilitate these objectives, the following materials are required:

- *Calculus Volume 1* published by OpenStax; this book will be our main text and is available for free at the following url: `https://openstax.org/details/books/calculus-volume-1`
- a TI-83 or TI-84 Texas Instruments Graphing Calculator

Course Outline

The schedule for the fourteen (14) weeks of the Fall semester is provided below. Make certain to note the Homework due dates listed in the right column:

Date	Topic	Assignments
September 4	Syllabus; Chapter 1: Precalc Review	
September 11	Section 2.1, 2.2, 2.3: Calculus Intro and Limits	
September 18	Sections 2.4, 2.5: Continuity and Precise Definitions of a Limit	HW1 Due
September 25	**FIRST EXAM Review/FIRST EXAM**	
October 2	Section 3.1, 3.2, 3.3: Introduction to Derivatives	
October 9	Section 3.4, 3.5, 3.6: More Derivatives	
October 16	Section 3.7, 3.8, 3.9: Even More Derivatives	HW2 Due
October 23	**Second Exam Review/SECOND EXAM**	
October 30	Section 4.1, 4.3, 4.4: Applications of Derivatives	
November 6	Section 4.5, 4.6, 4.7: More Applications	HW3 Due
November 13	Section 4.8, 4.9, 4.10: Even More Applications, Antiderivatives	
November 20	**FLOATER DAY/PROJECT CATCH UP**	HW4 Due
November 27	**THANKSGIVING RECESS**	
December 4	Section 5.1, 5.2, 5.3: Introduction to Integration, Fundamental Theorem of Calculus	
December 11	Section 5.4, 5.5, 5.6: Additional Techniques, Substitution	HW5 Due
TBD	**Final Exam: Cumulative, Focus on Chapter 5**	

This is a general order of material to be covered and may be adjusted based on course needs that arise.

Exam Schedule

Exams are used to assess your learning and provide feedback in addition to the Homework Assignments. As of the start of the course, the exam schedule is as follows:

1. Midterm Exam 1: Friday, September 25th
2. Midterm Exam 2: Friday, October 23rd
3. Midterm Exam 3: November 20th
4. Final Exam: TBD

Just like the overall course schedule, these dates may be adjusted to suit course needs as they arise.

Grading

Grading is based on The following criteria

- Homework: 30 %
- Projects: 20 %
- Midterm Exam 1: 20 %
- Midterm Exam 2: 20 %
- Final Exam: 10 %

In addition to this breakdown, the lowest Homework grade will be dropped. I highly recommend making an effort on homework assignments, given that this practice will assist you in the Exams.

Completing the assignments is important to your success in this class, which is why there is a very liberal late policy: Homework Assignments will be accepted late with no penalty for the first instance. Each late assignment afterwards can be turned in a week late for a half grade penalty (for example a late assignment with a 86% B becomes a 81% B-). No assignments will be accepted after the late acceptance period and will be assigned a grade of zero (0).

Projects

During the semester of total of five (5) "deep-dive" projects will be assigned with due dates posted on HuskyCT. These project will involve the use of technology such as Spreadsheets (Excel or Google Sheets) in order to explore computation methods or applications of content discussed in lecture. We will have short tutorials at the end of some of our lectures to help support these projects.

Participation

Make note that participation is **not factored** into your final grade. Despite this, it is in your best interest to be present in class as this is an opportunity to ask questions and stay on top of material as the schedule shifts. If you are unable to make a class for any reason, it is your responsibility to reach out and make up lost practice. This can include reaching out to me or your fellow students for assistance.

Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drops, academic renewal, etc. found in the Fairfield University Catalog. You should be aware of the new deadlines and penalties for adding and dropping classes.

Academic Honesty

Fairfield University takes academic misconduct seriously as it unfairly represents your learning and your effort in the course. Academic misconduct includes cheating, sharing exam answers, and plagiarism (representing someone else's work as your own). In order to support this policy, any student found participating in academic misconduct will be given a zero (0) for the first offense. repeated offenses can result in more severe penalties from failing the course up to expulsion. If there is confusion about what is academic misconduct, contact me.

Accessibility

Some students require accommodations in order to equitably benefit from attending this course. In order to provide these accommodations, please inform me (confidentially) regarding any necessary accommodations to best improve your learning experience and make contact with the Office of Accessibility.