MATH1131Q: Calculus I

Spring 2026

Instructors

Professor:	Dr. Michael Biro (michael.biro@uconn.edu)
TA (011D,014D,17D):	Jack Mills (pue25001@uconn.edu)
TA (012D,015D,18D):	Yuchen Zhang (nyr24001@uconn.edu)
TA (013D,016D):	Ritik Jain (yhp24001@uconn.edu)
Website:	https://lms.uconn.edu

Course Information

Section:	Lecture section 010, along with a discussion section (011D - 018D)
Room:	ITE C80 plus discussion meeting, check your schedule
Time:	TuTh 9:30am–10:45am plus discussion meeting, check your schedule
Textbook:	Stewart, *Calculus: Early Transcendentals*, 9th ed.

Course Format

The course consists of a large format lecture component (Section 010) with your instructor (on Tuesdays/Thursdays) along with a small format discussion component (sections 011D - 018D) with a Teaching Assistant (on Mondays). All content is presented in lecture, while discussions are used for review and administration of course assessments.

Catalog Description

Limits, continuity, differentiation, antidifferentiation, definite integral, with applications to the physical sciences and engineering sciences. Suitable for students with some prior calculus experience. Substitutes for MATH 1120Q, 1126Q, or 1151Q as a requirement. Two credits for students who have passed MATH 1125Q.

Learning Outcomes

MATH 1131Q is an introduction to differential and integral calculus, which is the mathematical language used when concerned with dynamically changing quantities. The main topics it covers are limits, derivatives, integrals, the Fundamental Theorem of Calculus, and applications. Successful completion of this course will require you to learn to:

- Apply fundamental algebra skills to calculus problems.
- Use common techniques to evaluate limits, and connect limits to derivatives.
- Interpret derivatives as rates of change.
- Combine ideas from algebra and trigonometry with knowledge of limits and derivatives to recognize features of the graph of a function.
- Use derivatives to describe the features of a function and its graph, including maximum and minimum values and where they occur.
- Identify applications of differential and integral calculus, and explain how calculus can be used in these applications.
- Apply the Fundamental Theorem of Calculus and the substitution rule to evaluate definite and indefinite integrals.
- Demonstrate how integrals are connected to the area under the graph of a function.

Course Materials

Course Materials

- **Textbook and HW Access:** Calculus Early Transcendentals, Single Variable by James Stewart (9th Edition), bundled with a WebAssign access code.
- **Calculators:** Calculators are not allowed on course assessments (quizzes and exams).

Husky Book Bundle

- If you opt out of the Husky Book Bundle, you only need to buy ONE of the three textbook/WebAssign bundles listed at the bookstore, OR a 1-term Cengage Unlimited Subscription; your choice will depend on what math classes you plan to take in the future.
- The least expensive way to get WebAssign access for all courses (MATH 1131Q,1132Q. 2110Q, and 2410Q) in the Calculus sequence is to purchase a 1-term Cengage Un-limited subscription online, directly from WebAssign, at the start of the term. This will give you access to all four courses and corresponding eBooks whenever you take them, even after the 1-term subscription expires. The only downside to this is that you do not get any physical textbook(s) included with it, or any textbook to keep for reference when you are not actively enrolled in one of the above courses.

Assessments

Exams

Overview	Three exams and a comprehensive final during finals week to assess overall learning; see shaded rows in the schedule.
Format	Exams will be held during your discussion section. They will be a mix of multiple choice, fill-in, true/false, and short-answer questions. No notes, cheat sheets, calculators, phones, AI tools, or other devices allowed.

Quizzes

Overview	Short 10 minute in-class quizzes reinforce ideas from class
Format	1-2 short questions, completed and collected weekly during discussion section meetings. Your two lowest quiz scores will be dropped when computing your final average. No notes, cheat sheets, calculators, phones, AI tools, or other devices allowed.

Lecture Reflections

Overview Complete a brief reflection survey each week to highlight topics from the lecture that you feel need more attention during the next discussion session.

Format Weekly, online surveys in HuskyCT becoming available after lecture on Tuesdays and due by 11:59pm on Fridays. Out of your 14 lecture weeks, submitting 12 or more reflection surveys will score 100% lecture participation.

Homework

Overview Weekly homework develops fluency with new concepts and connects skills to applications.

Format Complete by the last day of classes 5/1. You will get five attempts for each question that is not multiple-choice and fewer than five attempts for each multiple-choice question; the exact number of attempts will depend on the number of choices. After each attempt, you will be told whether your answer is correct or not. If you are not able to get the correct answer after your initial attempts, we recommend that you seek help from your peers, your TA or instructor via office hours, the Supplemental Instruction sessions, the Q-Center, a tutor, or another student before attempting to answer the problem again.

Grade Component Weights

Assessment	**Weight**
WebAssign	10%
Lecture Reflections	5%
Quizzes	20%
Exam 1	15%
Exam 2	15%
Exam 3	15%
Final Exam	20%

Letter Grades

Point Total	Letter Grade
$93.00 \leq$	A
90.00 - 92.99	A-
87.00 - 89.99	B+
83.00 - 86.99	B
80.00 - 82.99	B-
77.00 - 79.99	C+
73.00 - 76.99	C
70.00 - 72.99	C-
67.00 - 69.99	D+
63.00 - 66.99	D
60.00 - 62.99	D-
< 60.00	F

Course Policies

Communication Policy

Announcements and important course information may be sent out via official University (UConn) email, through HuskyCT, or announced in class. It is the student's responsibility to check for messages and announcements regularly and to determine what was missed when absent.

Sending Email: Email from your uconn.edu email account and use a clear subject line like `MATH1131Q: Topic/Question`. Make sure to include all relevant information in the email body, such as your name and discussion section, specific textbook sections or exam/homework question numbers. We aim to respond within **24–48 hours** (weekday business hours). Generic communications that appear to be AI output may not receive a response.

Late/Make-up Policy

Late Homework: No extensions available after the due date of 5/1.

Quiz or Exam Conflict: For emergencies or documented conflicts, contact your instructor as soon as possible, in advance of the quiz or exam if at all possible. Arrangements for a make-up assessment will be considered on a case-by-case basis, and delayed notification of your instructors may result in your not being allowed to make up the assessment.

Academic Integrity

It is in your best interest to maintain your academic integrity. Any form of academic dishonesty undermines the goals of our course and devalues the learning process. Academic dishonesty is a serious offense at UConn and can result in a zero grade on an assessment and/or failure in the course.

Success in the Course

Time Commitment

Plan on at least **12 hours/week** of focused work outside of class meetings. A typical week might include: *reading, studying, and practicing solving problems (6-8h)*, *homework (2h)*, and *review/quiz prep (2-4h)*. Prior to each exam (and not just a few days before!), your schedule should include significantly more studying time in preparation. If you're spending much more or less, check in with us — we can help calibrate your study plan.

How to Succeed

Weekly study plan recommendation:

- **Before class:** Read sections listed for the week; look at the definitions and the main theorems; jot down 2–3 questions on anything that isn't clear to bring up in class.
- **In class:** engage in problems, ask/answer questions, compare approaches, get a feel for problem motivation and where solution ideas come from.
- **After class:** Reread sections to go over the ideas again; complete the assigned coursework; practice problems; reflect: "What changed in my understanding?", "What is still not clear to me?"; Ask clarifying questions.
- **End of week checkpoint:** try at least one new, unworked problem per section, see if you can solve it from memory without looking at notes or book. If not, review what you didn't you remember or where you got stuck.

Calculus Help:

- **Student hours:** We'll hold office hours multiple times a week for you to come ask any questions you might have. (Schedule posted to HuskyCT Calendar)
- **Supplemental instruction:** The Academic Achievement Office hosts weekly Supplemental Instruction (SI) Sessions for MATH1131Q (https://achieve.uconn.edu/supplemental-instruction/)
- **Q Center:** The Q Center has tutoring and review sessions for MATH1131Q (https://qcenter.uconn.edu/)
- **Campuswire:** We will monitor the course discussion board and answer posted questions: Campuswire https://campuswire.com/p/GE0C921C7 (Code 7622)
- **Exam Reviews:** Information will be announced in HuskyCT before each exam.
- **Practice Worksheets:** Worksheets (with final answer key) will be available in HuskyCT for additional practice problems.

Course Culture

We learn best in a community that is **welcoming, respectful, and growth-oriented**. Expect to:

- listen actively and value different problem-solving approaches,
- collaborate freely and ethically—help peers think through problems, don't hand over answers,

If you encounter barriers to inclusion or access, please reach out (and see resources below).

Well-Being & Resources

You belong here. If you're having difficulties with responsibilities outside the classroom — health, caregiving, work hours, housing — please let me know as soon as possible. We can plan next steps.

Q Center	Tutoring and reviews: https://qcenter.uconn.edu/
CSD	Academic accommodations: https://csd.uconn.edu/
Dean of Students	Resources and support: https://dos.uconn.edu/
Counseling	Mental health: https://studenthealth.uconn.edu/
IT Help	Tech support: https://its.uconn.edu/
UConn Policies	Syllabi Links: https://provost.uconn.edu/faculty-and-staff-resources/syllabi-references/

If you miss class due to illness or emergency, follow campus guidance (https://dos.uconn.edu/frequently-asked-questions/) and email me as soon as you're able so we can create a reasonable plan.

Course Schedule

Week	Dates	Lecture Textbook Sections and Topics	Discussion Activity
1	01/19–01/23	2.1, 2.2: Intro, Tangents, velocity, limits	No discussion (MLK Day)
2	01/26–01/30	2.3,2.5,2.6: Limit laws, continuity, asymptotes	Quiz 1
3	02/02–02/06	2.7,2.8,2.4: Derivatives, rates of change, epsilon-delta	Quiz 2
4	02/09–02/13	3.1, 3.2: Polynomial and exponential derivatives, product and quotient rules	Quiz 3
	2/16	Exam 1 in Discussion Section (50 min)	Covers 2.1-2.3, 2.5-2.8
5	02/16–02/20	3.3,3.4,3.5: Trigonometric derivatives, chain rule, implicit differentiation	Exam 1
6	02/23–02/27	3.6,3.8: Derivatives of logarithmic and inverse trigonometric functions, exponential growth and decay	Quiz 4
7	03/02–03/06	3.9,3.10: Related rates, linear approximations and differentials	Quiz 5
8	03/09–03/13	4.1,4.2: Maximum and minimum values, mean value theorem	Quiz 6
9	03/16–03/20	Spring Break	-
	3/23	Exam 2 in Discussion Section (50 min)	Covers 3.1-3.6, 3.8-3.10
10	03/23–03/27	4.3,4.4: Shapes of graphs, indeterminate forms and L'Hôpital's Rule	Exam 2
11	03/30–04/03	4.7,4.8: Optimization problems, Newton's method	Quiz 7
12	04/06–04/10	4.9,5.1,5.2: Antiderivatives, areas and distances, the definite integral	Quiz 8
13	04/13–04/17	5.3,5.4: The fundamental theorem of calculus, indefinite integrals and the net change theorem	Quiz 9
	4/20	Exam 3 in Discussion Section (50 min)	Covers 4.1-4.4, 4.7–4.9, 5.1–5.2
14	04/20–04/24	5.5,6.1: The substitution rule, areas between curves	Exam 3
15	04/27–05/01	6.2: Volumes, review	Quiz 10
	TBD	Final Exam	TBD; Cumulative