UCONN
UNIVERSITY OF CONNECTICUT

MATH 1071Q- Section 12 (Hybrid)

Calculus for Business and Economics

Fall 2026 Syllabus

Excluding materials for purchase, syllabus information may be subject to change.

Always refer to the syllabus linked in HuskyCT for the most up-to-date information.

Welcome! This course is an introduction to calculus and applications designed primarily for students majoring in business, economics, or majors in life and social sciences. We will cover essential concepts of differential and integral calculus.

Course Information

Course Title: Calculus for Business and Economics
Credits: 3
Mode: In-Person
Prerequisites: Recommended preparation: MATH 1011Q or the equivalent, and MATH 1070Q, and a qualifying score on the math placement assessment (placement.uconn.edu/mathematics-placement). Not open to students who have passed MATH 1110Q. Only one credit for students who have passed MATH 1121Q, 1131Q, or 1151Q.

Instructor: Katie Hall

Email: katie.hall@uconn.edu

Office Hours/Availability: (Tentative, might be updated) Monday 11:15-12:45, Wednesday 2-3:30 in MONT 408

You are also encouraged to utilize the Q Center as a resource. The Q center offers free one-on-one tutoring for all students in Q courses. It is in the library on Level 3. You can find more information and hours here: https://qcenter.uconn.edu/

Course Description

Derivatives and integrals of algebraic, exponential and logarithmic functions. Applications to business and economics.

Course Objectives

1. Use mathematical models to represent various business and economics related functions, including cost, revenue, profit, and demand.
2. Understand and work with exponential and logarithmic expressions, especially as related to interest and other exponential growth problems.
3. Understand the idea of limits and limits at infinity. Evaluate various types of limits and define concepts like asymptotes, continuity, and derivatives in terms of limits.
4. Understand the derivative as the instantaneous rate of change and also the slope of the tangent line to a curve. Use the tangent line to approximate functions.
5. Evaluate the derivative of functions using standard derivative rules.
6. Understand elasticity of demand.
7. Use the first and second derivative of a function, as well as its properties like domain, asymptotes and symmetry, to understand the overall shape of a function and draw its graph.
8. Setup and solve optimization problems in various contexts, using derivatives.
9. Evaluate both indefinite and definite integrals, using basic antiderivative rules, including substitution. This includes developing an understanding of the Fundamental Theorem of Calculus.
10. Use integrals/antiderivatives to solve problems, like finding cost from marginal cost, net change from a rate of change, or the area under or between curves.

Course Materials

The course textbook is *OpenStax Calculus Volume 1: UConn Custom Business Calculus Edition. Available here: https://www2.math.uconn.edu/ClassHomePages/Math1071/Textbook2*

There are no required materials for purchase, except you will need a calculator for exams.

In general, most calculators, including graphing calculators, are allowed on exams. Models that can perform symbolic manipulation (e.g. take derivatives) are not allowed.

Graphing calculators: TI 82, 83, 84, 84 plus, 85 or 86 may be used. Models TI-89 and above **(including TI-Nspire CAS)** are not permitted on the exams. See this link (from the University of Arizona) for a more detailed description of what is and is not allowed (including Casio brand calculators). At your instructor's discretion, you may also use the Desmos Test Mode app, a free calculator app.

Course Expectations

1. This class is offered in the hybrid modality. You are expected to watch the posted videos outside of class. You can expect up to 150 minutes of videos per week (just like the meeting time of a 3-credit course.)
2. On most Wednesdays, there are optional problem-solving sessions. These do not replace watching the videos! You should watch the videos before attending. During these sessions you will have a chance to ask questions on material and work on practice problems. You are also encouraged to attend office hours to ask questions.
3. There are three Wednesdays (see calendar on last page) where you will be required to attend in-person to take exams. All students must take exams in-person during these times. There are not online exams.
4. You are expected to take all course components seriously. Don't wait until the last minute to start the homework or studying for exams.
5. You are expected to put your best effort forward and ask for help when needed.

Course Grade Breakdown:

Grading Scheme

Category	Where	Description	Percentage Toward Grade
Online Homework	Access through HuskyCT	Due weekly	20%
Worksheets/Other Graded Assignments	Access through HuskyCT. See your instructor for section specific details.	Worksheets are due Weekly on Fridays. See instructor for section specific details.	20%
Exam 1 (Sept 30)	In-person during class time	Covers Chapter 1	15%
Exam 2 (Oct 28)	In-person during class time	Covers Chapter 2 and 3	15%
Exam 3 (Nov 18)	In-person during class time	Covers Chapter 4.1-6	15%
Final Exam (TBA)	In-person during final exam period assigned by Registrar	Cumulative	15% (will count as 30% if it replaces lowest midterm)

Course Letter Grade Scale:

Course grade percentages will be rounded to the nearest integer. Your course grade will be determined using the default HuskyCT grading scheme, detailed as follows:

Course Grade Percentage	Letter Grade	Course Grade Percentage	Letter Grade
93-100	A	73-76.99	C
90-92.99	A-	70-72.99	C-
87-89.99	B+	67-69.99	D+
83-86.99	B	63-66.99	D
80-82.99	B-	60-62.99	D-
77-79.99	C+	0-59.99	F

Online Homework:

There will be an online homework component of the course. Students will have unlimited attempts at each assignment. All questions must be submitted each time. Questions change with each attempt. Your grade is based on your highest attempt score. Access to online homework will be through HuskyCT.

Weekly Worksheets:

There is a worksheet due each week. The way you are graded on worksheets is a bit non-standard so be sure to read more below about how to submit them. You need to submit each worksheet twice and the second submission is worth the most points.

First Submission

Once you've covered the material in lecture and done the online homework, it's time to start the worksheet! The worksheets are slightly more complicated questions so you might need to review your notes from class and the textbook to help you complete them. Your goal is to complete each question to the best of your ability. If you get stuck, we encourage you to stop by office hours or the Q-Center. Remember - we are here to help. If you are unsure of your answer, just write us a few sentences about what you tried to do and what resources (videos, notes, office hours, Q-center, textbook, etc) you used. Once you've completed the assignment to the best of your ability, there is a link on HuskyCT to submit your work. Submit your work as a PDF or as clear images. Your grade is based on you trying your best on each problem.

Second Submission

As soon as you complete the first submission, the solutions to the worksheet will become available. Your goal for the second submission is to use these solutions to check your work on the assignment. You should grab a different color pen or pencil (or put your new writing in a box) and correct any mistakes you made. Be sure you understand what went wrong and how to do the problems correctly. If you are unsure, we are here to help :). Feel free to ask in class or office hours. Then submit the assignment to the second submission area. Your grade is based on having correct answers to each question (you can use the solutions to help you). **You must**

submit the entire worksheet (showing all answers) as part of the second submission, even if everything was right on the first submission.

First Worksheet

The first worksheet covers the syllabus. It only needs to be submitted once but be sure to use the syllabus to make sure you answer each question correctly!

Exams:

Midterm Exams

There will be three midterm exams.

- Exam 1 is Sept 30 and covers 1.1-1.8
- Exam 2 is Oct 28 and covers 2.1-2.4, 3.1-3.4, 3.6, 3.9
- Exam 3 is Nov 18 and covers 4.1-4.3, 4.5-6.

Each exam will consist of a mix of multiple choice and free response questions. Exams will be given during class, in person. Exam Prep material is available in HuskyCT.

Final Exam

There will be a cumulative final exam during the final exam week consisting of both multiple choice and free response questions. Students who score higher on the final than their lowest midterm will automatically have their final exam grade replace their lowest midterm grade. All students, including students with Dean's approval for rescheduled final exams, are required to take the final exam in-person.

Extra Credit

Some extra credit questions may be available on each exam. All extra credit opportunities will be made available to the entire class. At no time will extra credit assignments be made available for individual students.

Due Dates and Late Policy

All due dates for online homework and worksheets will be listed in HuskyCT. Deadlines are based on Eastern Time unless otherwise specified. *The instructor reserves the right to change dates accordingly as the semester progresses. All changes will be communicated in an appropriate manner.*

Please reach out to your instructor for their policy on late submissions of worksheets and online homework.

If you miss an exam, you must contact your course instructor within 24 hours to discuss the possibility of a make-up. If a make-up exam is allowed, it must be completed within one week of the original exam date. Final exam make-ups are only allowed with Dean of Students approval.

Feedback and Grades

We will make every effort to provide feedback and grades within a week of your submissions. To keep track of your performance in the course, refer to My Grades in HuskyCT.

Weekly Time Commitment

You should expect to dedicate 9 to 12 hours a week to this course. This expectation is based on the various course activities, assignments, and assessments and the University of Connecticut's policy regarding credit hours.

Students with Disabilities

The University of Connecticut is committed to protecting the rights of individuals with disabilities and assuring that the learning environment is accessible. Students who require accommodations should contact the Center for Students with Disabilities, Wilbur Cross Building Room 204, (860) 486-2020 or http://csd.uconn.edu/.

To provide students with disabilities the appropriate accommodations, CSD must send an official letter to your instructor. If your accommodations require you to take quizzes and/or exams in a separate space, it is your responsibility to schedule an appointment with CSD's testing center through MyAccess at least one week before each quiz/exam date.

Academic Honesty Policy

This course expects all students to act in accordance with the Guidelines for Academic Integrity at the University of Connecticut. UConn defines academic misconduct as "dishonest or unethical academic behavior that includes, but is not limited to, misrepresenting mastery in an academic area (e.g., cheating), failing to properly credit information, research, or ideas to their rightful originators or representing such information, research, or ideas as your own (e.g., plagiarism)." Visit this site for more information: https://policy.uconn.edu/2023/07/11/academic-scholarly-and-professional-integrity-and-misconduct-aspim-policy-on/.

Generative AI models, like ChatGPT, Gemini and Copilot aggregate the ideas and insights of many researchers without giving them credit. Submitting ChatGPT-generated text, images or other work as your own work would be an act of plagiarism insofar as it would involve passing off the work of others as your own. For these reasons, you are not allowed to use this ChatGPT or other similar tools to produce academic work for this class, unless otherwise explicitly permitted to do so. You may use these to ask questions and get ideas but the work that is submitted by you should be yours and reflect your individual understanding. If you do use these tools to help in your work, you must provide an acknowledgement statement stating how they were used.

Below is a list of examples of academic misconduct in this course:

- Cheating or helping others cheat on a quiz or an exam. Using unauthorized materials on quizzes or exams including looking at your neighbors' papers, your notes, books, or electronic devices is cheating. Communicating with any other human being (besides the instructor) during a quiz or an exam is cheating.
- Cheating or helping others cheat on a project or homework. Turning in work on a project that was not written up independently by you and your partners is cheating. All work submitted should represent you and your partners' honest understanding of the material. You are allowed to work on homework with other students, but your submissions should reflect your honest understanding of the material.
- Distributing your instructor's materials to students' outside of this course, including posting materials on the internet. You are forbidden from sharing or posting projects, exams, quizzes, and homework problems created by your instructor. You are also forbidden from sharing or posting your solutions to projects, exams, quizzes, and homework.

Any student who commits an act of misconduct will be reported to the university. Violations of this policy will result in a zero on the assignment. Repeat offences or other more serious offence will lead to a grade of F in the course. If you have questions about academic integrity or intellectual property, please consult with your instructor.

Resources for Students Experiencing Distress

The University of Connecticut is committed to supporting students in their mental health, their psychological and social well-being, and their connection to their academic experience and overall wellness. The university believes that academic, personal, and professional development can flourish only when each member of our community is assured equitable access to mental health services. The university aims to make access to mental health attainable while fostering a community reflecting equity and diversity and understands that good mental health may lead to personal and professional growth, greater self-awareness, increased social engagement, enhanced academic success, and campus and community involvement.

Students who feel they may benefit from speaking with a mental health professional can find support and resources through the Student Health and Wellness-Mental Health (SHaW-MH) office located in Storrs on the main campus in the Arjona Building, 4th Floor. Through SHaW-MH, students can make an appointment with a mental health professional and engage in confidential conversations or seek recommendations or referrals for any mental health or psychological concern. Mental health services are included as part of the university's student health insurance plan and partially funded through university fees. If you do not have UConn's student health insurance plan, most major insurance plans are also accepted. Please visit https://studenthealth.uconn.edu/ or call (860) 486-4705 if you have questions.

Acknowledgement Statement:

This syllabus is based on a version from previous semesters from this class and other classes. It has been updated to reflect the current course structure by Katie Hall and your course instructor. It also contains suggested language provided by UConn.

Tentative Course Schedule - Fall 2026

Textbook: OpenStax Calculus – Custom UConn Business Calculus edition

https://www2.math.uconn.edu/ClassHomePages/Math1071/Textbook2

The schedule below gives you an idea of what to cover if you are watching videos three days a week. You can set you own schedule within each week. It is recommended that you finish the "Monday" and "Tuesday" videos before Wednesday's problem sessions.

WEEK	MONDAY	TUESDAY	WEDNESDAY 11:15-12:05 MONT 112	THURSDAY	What's due Friday/ Monday	Friday Date
1	Intro and 1.1 Exponents	1.2 Function Review: Part A	In-person Class Session – Introduction and Syllabus	1.2 Function Review: Part A Continued	Worksheet 1: Syllabus **Online HW 1.1-1.2**	Sept 4
2	NO CLASSES	1.3 Function Review: Part B	In-person Class Session – Practice Problems	1.4: Basic Classes of Functions (lines)	Worksheet 2: 1.1-1.2 **Online HW 1.3-1.4**	Sept 11
3	1.5: Polynomial and Rational Functions	1.5: Polynomial and Rational Functions, Continued	In-person Class Session – Desmos and Word Problems	1.6: Mathematical Models	Worksheet 3: 1.3-1.4 **Online HW 1.5**	Sept 18

4	1.6: Mathematical Models, Continued	1.7: Exponential Functions	In-person Class Session – Practice Exam	1.8 Logarithms	Worksheet 4: 1.5 and 1.6 **Online HW 1.6, 1.7 and 1.8**	Sept 25
5	Review	Review	Exam 1: Chapter 1.1-1.8 **(Sept 30)**	2.1: Calculus Preview	Worksheet 5: 1.7 and 1.8	Oct 2
6	2.2/2.3: Limit Laws	2.3 Continued Limit Practice 2.4: Continuity	In-person Class Session – More Limit Practice	3.1: Defining the Derivative	Worksheet 6: 2.1 and 2.2 **Online HW 2.1-2.2 and** **Online HW 2.3-2.4**	Oct 9
7	3.2: Derivative as a Functions	3.3: Differentiation Rules	In-person Class Session –Derivative Practice	3.3: Differentiation Rules Continued	Worksheet 7: 2.3 and 2.4 **Online HW 3.1-3.3**	Oct 16

8	3.4: Derivatives as Rates of Change	3.6: The Chain Rule	In-person Class Session –Practice Exam	3.9: Derivatives of Exponential and Logarithmic Functions	Worksheet 8: 3.1-3.3 **Online HW 3.4, 3.6, 3.9**	Oct 23
9	Review	Review	Exam: Chapter 2 and 3 (**Oct 28)**	4.1: Elasticity of Demand	Worksheet 9: 3.4, 3.6, 3.9 **Online HW 4.1**	Oct 30
10	4.2: Linear Approximations	4.3 Parts A: Absolute Extrema	In-person Class Session – Elasticity of Demand	4.3 Part B Local Min/Max and	Worksheet 10: 4.1 and 4.2 **Online HW 4.2 and 4.3**	Nov 6
11	4.5 Part B: Second Derivative and Shape of Graph	4.6: Limits at Infinity and Asymptotes	In-person Class Session – Practice Exam	4.6: Limits at Infinity and Asymptotes	Worksheet 11: 4.3-4.5 **Online HW 4.5 and 4.6**	Nov 13
12	Review	Review	Exam: Derivative Applications (4.1-4.6) (**Nov 18**)	4.7: Optimization	Worksheet 12: 4.6 **Online HW 4.7**	Nov 20

13	4.8: Antiderivatives	5.1: Approximating Areas	In-person Class Session -- Optimization	5.2: The Definite Integral	Worksheet 13: 4.7 and 4.8 **Online HW 4.8, 5.1 – 5.2**	Dec 4
14	5.3: The Fundamental Theorem of Calculus	5.5: Substitution	In-person Class Session –Practice Exam (Covering topics since Exam 3)		Worksheet 14: 5.1-5.5 **Online HW 5.3 and 5.5**	Dec 11
Final Exam Week			**FINAL EXAM TIME AND DATE SET BY UNIVERSITY**			