MATH 1132Q (Calculus II)

Fall 2026

University of Connecticut

I General Information

Contact Information

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Office Hours: Mon 11:15a-12:15p, Wed 2p-3p

Course Format

The course consists of a large format lecture component with your instructor along with a small format in person discussion component with a Teaching Assistant (on Wednesdays). All content is presented in lecture, while discussions are used for review and administering course assessments (quizzes and exams).

In section 100 the lecture content is delivered asynchronously online (you can watch the week's material on your own schedule). In section 120 the lecture is in-person on Monday and Wednesday.

Course Description

MATH 1132Q explores transcendental functions, integration techniques, polar coordinates, infinite sequences and series, and parametric equations. An emphasis is given to applications from the physical sciences and engineering.

Course Materials

Because lecture notes will be provided in HuskyCT (see below), there is no *required* textbook for this course. However, there are many good, and cheap, calculus textbook options. The lectures will follow *Calculus Early Transcendentals, Single Variable* by James Stewart (9th Edition), which is almost identical to any recent edition of Stewart's textbook. I **strongly recommend** that you read some calculus book in order to see additional examples and explanations. Here are two great options.

- Any recent edition of *Calculus Early Transcendentals, Single Variable* by James Stewart. The sections we will cover are the same for the 7th, 8th, and 9th editions, so any used copy will do.

- *OpenStax Calculus* found at https://openstax.org/details/books/calculus-volume-2 is a free online textbook covering the same topics.

Note: Calculators are **not** allowed on course assessments (quizzes and exams).

Communication with Students

Announcements and important course information will be sent out via official University (UConn) email or through HuskyCT. It is the student's responsibility to check for messages and announcements regularly. Please use my UConn email to communicate with me.

II Course Topics & Schedule

The course is divided into three Units. Below is the list of topics for each unit as well as the schedule for the course. The listed sections numbers are from any of Editions 7 through 9 of Stewart's *Calculus Single Variable: Early Transcendentals* and from Volume 2 of the free OpenStax calculus textbook.

Unit 1: Integration Techniques

Dates: September 1st → September 30th

Sections covered:

- Integration by Parts (Stewart 7.1; OpenStax 3.1)
- Trigonometric Integrals (Stewart 7.2; OpenStax 3.2)
- Trigonometric Substitution (Stewart 7.3; OpenStax 3.3)
- Integration by Partial Fraction Decomposition (Stewart 7.4; OpenStax 3.4)
- Approximate Integration (Stewart 7.7; OpenStax 3.6)
- Improper Integrals (Stewart 7.8; OpenStax 3.7)
- Work (Stewart 6.4; OpenStax 2.5)
- Arc Length (Stewart 8.1; OpenStax 2.4)

Quiz: Weekly on Wednesdays in discussion

HW: Due weekly on Wednesdays (for previous week's material)

Exam 1: Wednesday, September 30th in discussion

Unit 2: Sequences and Series

Dates: October 1st → November 11th

Sections covered:

- Sequences (Stewart 11.1; OpenStax 5.1)
- Series (Stewart 11.2; OpenStax 5.2)
- The Integral Test (Stewart 11.3; OpenStax 5.3)
- The Comparison Tests (Stewart 11.4; OpenStax 5.4)
- The Alternating Series Test (Stewart 11.5; OpenStax 5.5)
- The Ratio Test (Stewart 11.6; OpenStax 5.6)
- Choosing a Test (Stewart 11.7)
- Power Series (Stewart 11.8; OpenStax 6.1)
- Representations of Functions as Power Series (Stewart 11.9; OpenStax 6.2)
- Taylor Series and Maclaurin Series (Stewart 11.10; OpenStax 6.3)
- Applications of Taylor Polynomials (Stewart 11.11; OpenStax 6.4)

Quiz: Weekly on Wednesdays in discussion

HW: Due weekly on Wednesdays (for previous week's material)

Exam 2: Wednesday, November 11th in discussion

Unit 3: DE's, Polar, and Parametric

Dates: November 12th → December 12th

Sections covered:

- Modeling with Differential Equations (Stewart 9.1; OpenStax 4.1)
- Separable Equations (Stewart 9.3; OpenStax 4.3)
- Curves Defined by Parametric Equations (Stewart 10.1; OpenStax 7.1)
- Calculus with Parametric Curves (Stewart 10.2; OpenStax 7.2)
- Polar Coordinates (Stewart 10.3; OpenStax 7.3)
- Area and Length in Polar (Stewart 10.4; OpenStax 7.4)

Quiz: Weekly on Wednesdays in discussion

HW: Due weekly on Wednesdays (for previous week's material)

Final Exam: TBD. **CUMULATIVE

Tentative Schedule: Below is the tentative outline of topics to be covered each week along with important due dates. This schedule is subject to change. The sections listed on the HW assignments are from Stewart's textbook and will match the way the sections are listed in HuskyCT.

Week	Lecture Content	Homework	Assessments
1 8/31-9/4	Ch 7.1 (Integration by Parts) Ch 7.2 (Trig Integrals)		
2 9/7-9/11	Ch 7.3 (Trig Substitution) Ch 7.4 (Partial Fractions)	HW 7.1, 7.2	Quiz 1 In Discussion
3 9/14-9/18	Ch 7.7 (Numerical Integration) Ch 7.8 (Improper Intgegrals)	HW 7.3, 7.4	Quiz 2 In Discussion
4 9/21-9/25	Ch 6.4 (Work) Ch 8.1 (Arc Length)	HW 7.7, 7.8	Quiz 3 In Discussion
5 9/28-10/2	Exam 1 Review Unit 2 Flex Day	HW 6.4, 8.1	Exam 1 In Discussion
6 10/5-10/9	Ch 11.1 (Sequences) Ch 11.2 (Series)		Quiz 4 In Discussion
7 10/12-10/16	Ch 11.3 (Integral Test) Ch 11.4 (Comparison Tests)	HW 11.1, 11.2	Quiz 5 In Discussion
8 10/19-10/23	Ch 11.5 (Alternating Series Test) Ch 11.6 (Ratio Test)	HW 11.3, 11.4	Quiz 6 In Discussion
9 10/26-10/30	Ch 11.8 (Power Series) Ch 11.9 (Power Series of Functions)	HW 11.5, 11.6	Quiz 7 In Discussion
10 11/2-11/6	Ch 11.10 (Taylor Series) Ch 11.11 (Appl. of Taylor Polyns)	HW 11.8, 11.9	Quiz 8 In Discussion
11 11/9-11/13	Exam 2 Review Ch 9.1 (Differential Equations)	HW 11.10, 11.11	Exam 2 In Discussion
12 11/16-11/20	Ch 9.3 (Separation of Variables) Ch 10.1 (Parametric Equations)	HW 9.1	Quiz 9 In Discussion
	Thanksgiving Break		
13 11/30-12/4	Ch 10.2 (Calculus w. Parametric) Ch 10.3 (Polar Coordinates)	HW 9.3, 10.1	Quiz 10 In Discussion
14 12/7-12/11	Ch 10.4 (Areas in Polar) Final Exam Review	HW 10.2, 10.3	Quiz 11 In Discussion

III Grading

For those of you who are in Discussion Sections 141D-147D (i.e. not in the honors discussion section), final grades in the course will be computed via the following grading breakdown.

Course Component	Weight
Final Exam	25%
Exam 1 (Unit 1)	20%
Exam 2 (Unit 2)	20%
Weekly Quizzes	20%
Homework	15%

A	[93, 100]	**B**	[83, 87)	**C**	[73, 77)	**D**	[63, 67)
A-	[90, 93)	**B-**	[80, 83)	**C-**	[70, 73)	**D-**	[60, 63)
B+	[87, 90)	**C+**	[77, 80)	**D+**	[67, 70)	**F**	< 60

I will make every effort to provide feedback and grades within 72 hours. To keep track of your performance in the course, refer to My Grades in HuskyCT.

Grading Disputes: Any grading disputes must be addressed within one week after an exam or homework has been returned.

Exams

There are 2 unit exams and a *cumulative* final exam. The tentative dates of these assessments can be seen below:

- EXAM 1: Wednesday, September 30. Covers Unit 1.
- EXAM 2: Wednesday, November 11. Covers Unit 2.
- Final Exam: TBD. Cumulative. Covers Units 1,2, and 3.

Exams consist of multiple choice, fill-in, true/false, and short answer style questions and are administered in-person during discussion.

Note: There is a *Exam Replacement Policy* that provides an opportunity to improve Exam 1 and Exam 2 scores. See "Course Policies" below.

Any academic integrity violation related to an exam will result in a grade of 0 on that exam and a referral to the disciplinary board.

Quizzes

Every Wednesday when there is not an exam, there will be a quiz administered in discussion. Quizzes are 15-20 minutes long and will be the same format as exams. The content of each quiz is noted on the course schedule and the problems will be similar to the homework problems for that week.

There are a total of 11 quizzes throughout the semester. Your quiz category score will consist of your best 8 scores (i.e. 3 will be dropped). This flexibility is to allow for missed quizzes due to illness and personal matters. As such, there are **no make-ups allowed** for missed quizzes.

Homework

Every section that is covered in lecture has an associated HW assignment. Homework assignments consist of multiple choice, true false, and fill-in style questions and can be accessed directly through HuskyCT. Each assignment has 5 total questions that are drawn from a bank of problems (typically 25-30 total problems). There is no time limit for HW and you can complete the assignment as many times as you would like (each time you will be given a random set of 5 problems). Your highest score will be counted towards your course grade.

Tip: Homework is a great way to prepare for Quizzes and Exams as you will see similar problems (format, content and difficulty) on course assessments. The more times that you complete each HW assignment, the more problems you will see from each problem "bank" and the better prepared you will be for course assessments. If you get a good score on your first attempt, that **does not mean you are fully prepared** as you have only seen a small subset of the available problems.

All HW should be completed by Wednesday the week following when it is covered in lecture. (e.g. we cover Ch 7.1 and 7.2 in week 1, HW should be completed by Wednesday of Week 2). This will ensure that you are prepared for the weekly quiz. However, the due date for ALL Homework assignments will be set to Friday **December 11th** so you can continuing practice all skills until the end of the semester.

IV How to Approach the Course

Participation

Attendance and participation during lecture and discussion sections are vital to success in this course. If you miss a session, please consult your instructor, TA, or a classmate to catch up on what was missed.

Instructor Office Hours

I will hold weekly office hours (see above). Feel free to stop by with questions.

The Calculus Corner

We have a dedicated space called the "Calculus Corner" where course TAs will be on-site ready to assist with any questions that you have. You can drop in at any time and stay as long as you'd like to. A schedule with location will be posted on HuskyCT.

The Q-Center

UConn offers an extensive tutoring center with experienced tutors ready to assist you with Calculus. You can find out more information by following this link: https://qcenter.uconn.edu/

Lecture Notes

The completed lecture notes will be posted each week on HuskyCT for you to refer to in case you missed any details of the lecture. Additional resources and videos may also be posted on HuskyCT within the respective Unit folder. This is not meant to replace active note-taking during lectures. You should strive to actively participate in class, take your own notes, and solve practice problems to better learn the material.

Prerecorded Lectures

I will also be posting a set of prerecorded lecture videos with accompanying notes for every section of the course. If you miss a lecture you can use these videos instead. These lectures are also excellent for review.

Homework

The homework problems are meant to help you practice using the procedures and skills covered in lecture. This is where learning actually takes place! You will not be able to memorize every type of problem, but rather should focus on understanding the methods and know why you are completing each step in the process. Taking the time to write out your solutions and thoughtfully solve problems will better prepare you to solve quiz and exam questions.

Artificial Intellegence Tools

Don't use them for this course, both because they are not allowed and because they will not help you learn this material. Of course, AI is going to play a large role in our world moving forward. However, in this course, you are learning the basic mathematical language of instantaneous change used throughout our society, especially in science, engineering, finance, business, and the social sciences. Understanding this language is **crucial** for upper level courses and careers in these fields. The only way to master this language is to do lots of problems. Asking AI to do them for you will not prepare you for the exams or for whatever career you are preparing for.

V Course Policies

Exam Replacement Policy

In this course, Exam 1 covers Unit 1, Exam 2 covers Unit 2, and the final exam covers Units 1, 2, and 3. If you perform poorly on Exam 1 or 2 we have a policy in place to allow you to improve your score if you show improvement on the Final Exam. When computing final course grades, your score for Exam 1 (and similarly for Exam 2) will be recorded as the *higher* of (i) your actual Exam 1 score and (ii) the **average** of your Exam 1 score and the Unit 1 portion of your Final Exam. Thus, if you improve your score on Unit 1 material on the Final compared to Exam 1, your recorded Exam 1 score will increase. This will be implemented *automatically* for all students if it is favorable for their overall grade.

Make-Up/Late Policy

Quizzes: The are no make-up quizzes provided. Instead we will count your best 8 quizzes out of the 11 total. This allows you flexibility to miss several quizzes on account of illness or personal obligations.

Exams: If there is an approved reason for you to not take an exam at its designated times, you must notify the TA and instructor *in advance of the exam* to make arrangements. Arrangements for a make-up test will be considered on a case by case basis. Make-up exams will be administered at the department's "Calculus Proctoring Center". Failure to contact the instructor as stated above will result in a grade of zero on the exam.

Academic Integrity

It is in your best interest to maintain 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.

Accommodations for 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. If you anticipate or experience physical or academic barriers based on disability or pregnancy, please let me know immediately so that we can discuss options. 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/.

Changes to the Course Syllabus

The information contained in the course syllabus, other than the grade and absence policies, may be subject to change with reasonable advance notice.