MATH 1132Q
Calculus II

University of Connecticut

Summer 2024: Online

I General Information

Contact Information

Instructor: Dr. David T. McArdle (feel free to call me Dave)

Email: dmcardle@uconn.edu

Office Hours: Held online (Schedule posted on HuskyCT)

Course Description

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

Course Materials

**There are no required course materials. Lecture notes and videos are provided by the instructor.

Textbook The optional course textbook is Calculus: Early Transcendentals, 8th Edition, by James Stewart OR Single Variable Calculus: Early Transcendentals, 8th Edition, by James Stewart.

Calculators: Calculators are not allowed on course assessments.

Technology: To participate in this course, you must have reliable internet access (to access all course material) and you must have access to a webcam (for web-based proctoring).

Communication with Students

Announcements and important course information may be sent out via official University (UConn) email or through HuskyCT. It is the student's responsibility to check for messages and announcements regularly. If you are taking this course over the summer from a different university, please be sure to check your UConn email regularly.

Inclusion Statement

I aim to create an inclusive learning environment in which all students are given the appropriate tools to succeed and grow intellectually. To support students with diverse ways of thinking and learning, I have incorporated pedagogical innovations that support various learning styles, means of engagement, and forms of assessment. Together we will form a cohesive community of learners where we will each showcase our strengths, support one another, and discover the beauty and utility of mathematics.

II Course Topics & Schedule

The course is divided into 3 Units. Below is the list of topics for each unit as well as the schedule for the course:

Unit 1: Integration Techniques

Dates: May 28th → June 6th

Sections covered:

- 7.0: Integration by U-Substitution & Review
- 7.1: Integration by Parts
- 7.2: Trigonometric Integrals
- 7.3: Trigonometric Substitution
- 7.4: Integration by Partial Fraction Decomposition
- 7.7: Approximate Integration
- 7.8: Improper Integrals
- 6.4: Work
- 8.1: Arc Length

Quiz and HW DUE: Weekly on Sundays at 11:59PM

Exam 1: Thursday, June 6th

Unit 2: Sequences and Series

Dates: June 7th → June 20th

Sections covered:

- 11.1: Sequences
- 11.2: Series
- 11.3: The Integral Test
- 11.4: The Comparison Tests
- 11.5: The Alternating Series Test
- 11.6: The Ratio Test
- 11.7: Choosing a Test
- 11.8: Power Series
- 11.9: Representations of Functions as Power Series
- 11.10: Taylor Series and Maclaurin Series
- 11.11: Applications of Taylor Polynomials

Quiz and HW DUE: Weekly on Sundays at 11:59PM

Exam 2: Thursday, June 20th

Unit 3: DE's, Polar, and Parametric

Dates: June 21st → June 28th

Sections covered:

- 9.1: Modeling with Differential Equations
- 9.3: Separable Equations
- 10.1: Curves Defined by Parametric Equations
- 10.2: Calculus with Parametric Curves
- 10.3: Polar Coordinates
- 10.4: Area and Length in Polar

Quiz and HW DUE: Weekly on Sundays at 11:59PM

Final Exam: Friday, June 28th. **CUMULATIVE

NOTE: I have provided a suggested daily schedule (below) and I highly recommend that you stick to this schedule to avoid falling behind. Due dates for quizzes, HW, and exams are fixed.

MATH 1132 SS1 at UConn

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		May 28	**29**	**30**	**31**	**June 1**
		Ch 7.0, Ch 7.1	Ch 7.2	Ch 7.3	Ch 7.4, Ch 7.7	
2	**3**	**4**	**5**	**6**	**7**	**8**
DUE: HW & Quizzes 7.1-7.4	Ch 7.8	Ch 6.4, Ch 8.1	Unit 1 REVIEW	**Exam 1**	Ch 11.1, 11.2	
9	**10**	**11**	**12**	**13**	**14**	**15**
DUE: HW & Quizzes 7.7, 7.8, 6.4, 8.1	Ch 11.3	Ch 11.4	Ch 11.5	Ch 11.6	Ch 11.8	
16	**17**	**18**	**19**	**20**	**21**	**22**
DUE: HW & Quizzes 11.1-11.6	Ch 11.9	Ch 11.10, 11.11	Unit 2 REVIEW	**Exam 2**	Ch 9.1, Ch 9.3	
23	**24**	**25**	**26**	**27**	**28**	
DUE: HW & Quizzes 11.9,11.9-11.11	Ch 10.1, 10.2	Ch 10.3	Ch 10.4	Final Exam REVIEW	**Final Exam**	**DUE:** HW & Quizzes 9.1, 9.3, 10.1-10.4

Color Key:	**UNIT 1**
	UNIT 2
	UNIT 3

III Grading

Final grades in the course will be computed via one of the following grading breakdowns (whichever yields a higher grade):

OPTION 1	**Weight**		**OPTION 2**	**Weight**
Final Exam	20%		Final Exam	25%
Exam 1	20%		Exam 1	25%
Exam 2	20%		Exam 2	25%
Quizzes	15%		Quizzes	25%
Homework	15%			
Participation	10%			

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: Thursday, June 6. Covers Unit 1.
- EXAM 2: Thursday, June 20. Covers Unit 2.
- Final Exam: Friday, June 28. Cumulative. Covers Units 1,2, and 3.

Exams consist of multiple choice, fill-in and true/false style questions and are administered using lockdown browser/respondus on HuskyCT. This is a proctoring application that must be downloaded ahead of time and requires use of a webcam and microphone (a requirement for the course). Exams will be available to take at your convenience during an 12 hour window on the specified exam day (From 10a-10p EST).

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

After watching a lecture video, you will be required to complete a "lecture quiz". The lecture quiz will involve answering a question related to the lecture content. These assignments are due Sunday evening of the week that the lecture video was scheduled. It is important to keep pace with the course content! Quizzes are either (i) MC/ TF quizzes that are auto-graded on HuskyCT or (ii) free response questions that you must submit your work for (as a JPEG or PDF) directly on HuskyCT.

Homework

*Only for Option 1. For each section of the course there will be a set of assigned homework problems (posted on HuskyCT). These problems should be completed and submitted on HuskyCT (through a link to gradescope) by Sunday evening at 11:59PM of the week that the content was scheduled.

Homework will be graded on a good-faith completion basis. We ask that you fully complete all problems. You can ask for assistance from instructors and peers. You can ask questions in office hours or attend work groups to engage collaboratively with others. We just ask that you do not use online resources.

Participation

*Only if choosing Option 1. Students must interact with their peers and instructors in this course in order to earn points towards their participation grade.

- Students must earn 20 participation points throughout the course of the semester in order to receive full credit for participation. Students can earn at most 5 points a week.
- Ways to Earn Points Students can earn points by actively participating (asking and answering questions) in online drop-in sessions (see the "Calculus Corner" below). Each active participant will earn 2 points per session.

  You can also earn participation points by asking and answering questions on our discussion board *Campuswire*. Campuswire keeps track of your "Reputation Points". Every 5 reputation points will equate to 1 participation point (towards your goal of 20):

  - Ask a question (2 campuswire points)
  - Get a *like* on a question you asked (1 campuswire point)
  - Answer a question (5 campuswire points)
  - Get your answer upvoted by a classmate (5 campuswire points)

IV How to Approach the Course

All of the course materials are available on or linked from HuskyCT.

This course moves at a very fast pace! You are expected to cover three weeks of material every week of the course. You need to be very careful about keeping up with the material and keep me informed about your progress! Here are some tips on how to succeed.

Course Schedule

I have provided a layout of the course schedule on HuskyCT (main page). This schedule shows which sections are to be covered each day, when optional live sessions are scheduled, when due dates are, and when exams are. Course sections can be covered on different days (since you can access lecture content at anytime), so it you need to adjust that is fine. However, keep in mind that due dates and exam dates are fixed for everyone.

Lecture Notes/ Videos

Each section of the textbook has a set of lecture notes and a video that go with it. I include "shell" notes as well as "completed" notes. You can imagine that the shell notes are essentially a blank framework of what will be covered in the lecture and the completed notes are the final project. To go along with the lecture notes, there is a lecture video that I have prerecorded that goes through all of the concepts from the notes. The lecture video is me completing the notes with you! These videos go through examples of how to solve various problems and they cover the main concepts. You can access notes and videos at your own convenience.

The Calculus Corner

Throughout the week Monday-Friday, we will offer virtual Q&A sessions for you to drop in and receive assistance on any questions that you might have related to course content. We would love to help! The schedule is available on HuskyCT.

Discussion Board!

You should take advantage of the fact that you are in a class with many other students also working on the same material. You can post questions on our CampusWire Discussion board (link on HuskytCT) and help one another with the course material.

V Course Policies

Make-Up/Late Policy

There will be no make-ups and no extensions for any form of assessment (exams, homework, etc.). Only extreme situations with an officially documented excuse will allow you to make

up an assignment.

Missed Exam Policy

If there is an approved reason for you to not take an exam at its designated times, you must notify the instructor in advance to make arrangements.

Students who are unable to attend an exam due to an emergency situation should notify their instructor via e-mail as soon as possible and within 36 hours. Arrangements for a make-up test will be considered on a case by case basis. Make-up exams will be administered only at the discretion of the instructor. If a student is allowed to make up a missed exam, (s)he must take it at a mutually arranged time. No further opportunities will be extended. Make-up exams may be penalized up to 10% of the earned grade depending on the reason for the make-up. Failure to contact the instructor as stated above will result in a grade of zero on the exam. This policy applies to the first missed exam only. Repeated offenses will be dealt with on a case-by-case basis, but generally will not be allowed to be made up.

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.

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, as deemed appropriate by the instructor.

VI Online Technical Requirements

Software Requirements

The software/technical requirements for this course include:

- HuskyCT/Blackboard (HuskyCT Accessibility Statement, HuskyCT Privacy Policy)
- Google Apps (Google Apps at UCONN Accessibility, Google for Education Privacy Policy)
- Dedicated access to high-speed internet with a minimum speed of 1.5 Mbps (4 Mbps or higher is recommended).
- Webcam (through computer, tablet, or phone).

Minimum Technical Skills

To be successful in this course, you will need the following technical skills:

- Use electronic mail with attachments.
- Save files in commonly used word processing program formats.
- Copy and paste text, graphics or hyperlinks.
- Work within two or more browser windows simultaneously.
- Open and access PDF files and videos.

Technical Help

Technical and Academic Help provides a guide to technical and academic assistance.

This course is completely facilitated online using the learning management platform, HuskyCT. If you have difficulty accessing HuskyCT, you have access to the in person/live person support options available during regular business hours through the Help Center. You also have 24x7 Course Support including access to live chat, phone, and support documents.