Math 1C: Calculus III
Winter 2025, CRN 38463, Section 27
Monday & Wednesday 4:00 PM to 6:15 PM
Classroom: MLC 108

Instructor Information

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Instructor:	Andrew Jianyu Yu
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Office Location:	S76a
Office Hours:	Monday and Wednesday 6:15pm to 7:45pm in MLC109; or by appointment

Course Description

Students in this course will learn about infinite series, lines, and planes in three dimensions, vectors in two and three dimensions, parametric equations of curves, derivatives, and integrals of vector functions.

Student Learning Outcomes (SLOs)

1. Analyze infinite sequences and series from the perspective of convergence, using correct notation and mathematical precision.
2. Apply infinite sequences and series in approximating functions.
3. Synthesize and apply vectors, polar coordinate system and parametric representations in solving problems in analytic geometry, including motion in space.

Prerequisite

MATH 1B or MATH 1BH with a grade of C or better or equivalent
Advisory: ESL 272 and ESL 273, or ESL 472 and ESL 473, or eligibility for EWRT 1A or EWRT 1AH or ESL 5
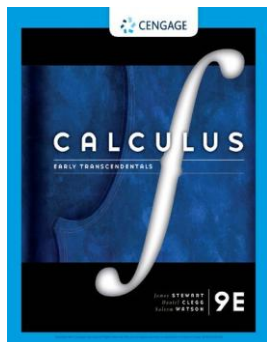
Required Textbook

Calculus: Early Transcendental 9th Edition by James Stewart.
Publisher: Cengage Learning; 9th edition (January 9, 2020);
Language: English; Hardcover: 1376 pages;
ISBN-10: 1337613924; ISBN-13: 978-1337613927
Item Weight: 5.45 pounds
Dimensions: 8.6 x 1.9 x 10.1 inches

Important Notes: It is not necessary to purchase a hard copy of this book because you will not be asked to solve textbook problems on paper. The 8th edition is uploaded to "Files" on Canvas.

Graphing Calculator

TI-83 Plus   TI-84 Plus   TI-84 Plus CE   TI-Nspire

Graphing calculator is **strongly recommended** for a Calculus course. TI-84 Plus or Plus CE is highly recommended. This calculator is widely used in math, science, and engineering courses. You are required to bring a physical calculator to the exam, and sharing calculator is considered as cheating incident. Using the calculator apps on your phone is strictly prohibited on the exam. Do not purchase the TI-Nspire Graphing Calculator (around $150) because it is too advanced for this course. Instructions will not be provided for TI-Nspire
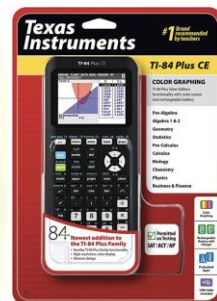
Technical Requirements

- **Your Email:** Please check your email regularly. If possible, connect your email with an app in your smartphone. You are welcome to ask me any questions related to lecture, homework, or personal emergency through email. **Please following the format of the subject line stated below.**

   "Math 1C 4pm: _____"

   You write your inquiry after the colon. For example
   Math 1C 4pm: Request Extension for Homework 2
   Your instructor is teaching 4 courses (~200 students) this quarter/semester. The subject line above helps your instructor to quickly access your grade and status immediately.

- **WebAssign (Work System):** Homework, quizzes, and exams will be assigned and graded on WebAssign. If an assignment is required to be completed on paper, you are required to scan your work and upload it to Canvas. WebAssign is **not free**. You must pay for your own account before the free trial period ends. Otherwise, you will not be able to complete any assignments until you make a payment. The **first module** on Canvas contains a link to register your WebAssign account and another link to access to WebAssign. Alternatively, you can login WebAssign on your web browser though the link https://www.webassign.net/.
- **Canvas (Main Learning Management System):** WebAssign has been integrated to Canvas. Each weekly **module** contains the lecture videos and the weekly assignment. The first module has 3 links – the first link for register your WebAssign account, the second link for accessing WebAssign from Canvas, and the third link for Cengage technical support. There are 2 ways to access an assignment. The first way is to click on the assignment on Canvas, it will directs you to WebAssign. The second way is to login WebAssign using the link above. **Scores on WebAssign will automatically roll over to the grade book on Canvas. At most 1 homework and 1 quizzes will be assigned weekly. It is strongly recommended that you check your WebAssign account frequently because late assignments will count as no credits.**

WebAssign Class Key and WebAssign-Canvas Integration
Use the link in the first module to register your account. Please take the advantage of the free trial and do not pay anything yet. **All purchases are non-refundable.** There is no class key for this course because WebAssign has been integrated to Canvas. Your instructor is not an employee of WebAssign and Cengage. If you experience any technical difficulty on WebAssign, please contact them to speak to a customer representative.

Canvas

There are a few places that you have to visit frequently on Canvas.

- **Modules**
  Each weekly module shows the notes and homework of that week.
- **Grades**
  Scores will be transferred from WebAssign to Canvas. Instructor will update the grade book weekly.
- **Files**
  Notes, books, and syllabus
- **Discussion**
  If we want to have a discussion regarding any topics, we will do this in the Discussion tab.
- **Announcement**
  Emergencies, date change, change of plans, and etc

Mandatory Attendance

This is an in-person course, attendance will be taken in every in-person meeting. Students who missed 3 or more meetings will be dropped from the course without notice.

Scanning Your Paperwork For Online Quizzes and Exams

Other than homework, you have to show your work for all online quiz and exam problems. Use one of the options below to upload your work to Canvas for credits. For either option below, number the problem and the page. For example, a grader can easily tell the problem number, the content of the problem, and all the steps you wrote to reach to the final answer. If an application problem has long problem statements, or a problem provides a very complicated graph (e.g. three-dimensional image), it is not necessary to copy the problem statements or the graph.

1. If you have a scanner, scan all the pages, save them as **one PDF document**, and upload the file to Canvas.

2. If you do not have a scanner, download the free app called **Genius Scan – PDF Scanner App** (five starts over 938k reviews). Take a picture of each page, use the app to merge all the pictures into **one PDF documents,** and upload the file to Canvas.

NOTE: Points will be deducted if you upload multiple images.

The due date of all the assignment follows the U.S. Pacific Standard Time (PST).

Homework & Discussion, 10% of the Course Grade

Problems will be assigned from each section taught in lecture. You are required to finish most of the homework on WebAssign. For written assignments, you have to scan your work, merge all the images into one PDF document, and submit to Canvas.

For in-class discussion: students will be solving problems in groups, instructor will stop by each group to answer or ask questions. Points will be awarded based on the answers and participation.

For other discussion: topics will be posted on Canvas's "Discussion", follow the directions and write your response. These free-response discussions have no right or wrong answer. To receive full credits, you must reply to one other student's discussion.

Quiz & Pop Quizzes, 15% of the Course Grade

In-person quizzes will be given in during a lecture. Quiz topics will be announced in advanced.

You are expected to complete online quizzes on WebAssign/Canvas. Quiz is an individual assignment. You are required to do your own work. Group-work is strictly prohibited. **Proof of your work is required for each online quiz. You must write your work & steps on paper and upload your work to Canvas. This written assignment cannot be extended if you missed the due date. A random pop quiz may be given at the last 10 to 15 minutes of a lecture. Pop quiz is based on the materials covered within that lecture. You are allowed to use any notes to take the pop quiz. Be aware that pop quizzes are individual work. Since pop quizzes and time-sensitive, make-up assignment is not available.**

Midterm, 45% of the Course Grade (Two Midterms)

Midterm 1: Week 4th, Wednesday January 29, 2 hours and 15 minutes

Midterm 2: Week 8th, Wednesday February 26, 2 hours and 15 minutes

Every student is required to take the exam in class. The table below is a summary of exam policies.

Final Exam, 30% of the Course Grade

Week 12: Wednesday March 26th, 4pm to 6pm, 2 hours

Every student is required to take a comprehensive final exam that reflects every element in the student learning outcomes.

Practice exams for midterms and final exam will be provided but will not be graded.

In-person Online Exam Policies	In-person Written Exam Policies
(1) Bring one device only (either a laptop or a tablet) (2) Bring paper to show your work (3) I will either collect your work or ask you to submit your work to Canvas (4) Lockdown browser will be enforced	Exam will be typed and printed You will get a physical copy of the exam Workspace will be provided in the exam You write your work on the exam paper and turn in your work.
You are allowed to carry the following items to the exams: (1) For midterms, you are allowed to bring 3 sheets (6 pages total, front of back) of notes. The size of the paper is 8.5 inches by 11 inches. The notes can be typed or handwritten. (2) For the final exam, you are allowed to bring 5 sheets of notes. The other requirements are mentioned in (1).	
Sharing calculator, tablet, or laptop is strictly prohibited and considered as cheating. All the exams are individual work. Students who cheat, plagiarize or help someone else cheat will be given a zero on the exam, and this zero is irreplaceable, meaning that it will count toward your course grade.	

Last Submission Policies

- Every student can extend the due date of <mark>one online homework</mark>.
- Every student can extend the due date of <mark>one online quiz</mark>.
- Scores earned using additional attempts will be counted as zeros.
- **The last homework and the last quiz cannot be extended.**
- Your one-time extension must be redeemed within 3 days after the due date. For example, if homework 1 is due on October 1st at 11:59pm, the deadline to request an extension is October 4th at 11:59pm.
- All the written assignment cannot be extended.
- Midterm cannot be rescheduled or extended.
- Final exam cannot be rescheduled or extended.

Check Points:

- Homework & Discussion 10%, Quiz & Pop Quiz 15%, Midterm 45%, Final 30%; Zero credit to all the late and missing work, no exception.
- For in-person online exams and online quizzes, you must show all your work on paper and submit your work to Canvas. The score does not count toward your course grade if your work is missing.
- You are expected to check the due dates on your WebAssign account at least once a day to plan accordingly. Also, you are expected to check our Canvas page to see announcements and week module regularly.
- Comparing to homework, you will have at most 3 attempts on quizzes and exams. Please solve the problems on a separate sheet of paper and double-check your work before submitting your answer to WebAssign. Additional attempts will not be granted for any reasons.

Tutoring at the Student Success Center (SSC)

The Student Success Center (SSC) provides free math tutoring services in-person and online. Please visit the following website for details and schedules.
https://www.deanza.edu/studentsuccess/mstrc/
If mathematics or statistics is not your strong subject, please utilize this free tutoring service. You should do the hard work to avoid getting a low exam grade. Solve each problem seriously.

Grading Rubrics

Your course grade will be assigned in the following standard:

A: 100% to 93%	A-: 92% to 90%	
B+: 89% to 86%	B: 85% to 83%	B-: 82% to 80%
C+: 79% to 75%	C: 74% to 70%	
D: 69% to 60%	F: below 60%	

All the cut-offs are not negotiable. For examples, 89.8% is not an A-minus and 69.8% is not a C. Transferring to UCs, CSUs, top-ranking universities, or scholarships are not a reason to ask for a higher grade.

Extra Credit Assignment

There are no extra credit assignments in this course to improve your grade. Please do not ask for any.

Academic Integrity

Academic dishonesty will not be tolerated. Any student attempting to defraud the instructor on a quiz, exam, final exam, or any other assessment item designated as an individual assignment will receive a zero on that assignment. This score is irreplaceable. If a cheating incident is detected on your work, the rest of your works in the course will be closely monitored and examined. All the assistant seekers and assistant providers will be reported to the college. *For example, bringing a quiz or an exam problem to a tutor is considered as cheating. Posting a quiz or an exam problem to websites such as Chegg, Course hero, or a forum is considered as cheating.*

Classroom Rules:

(1) Avoid early departures: leaving the class early without prior arrangement with the instructor is generally discouraged.
(2) Using technology: you are welcome to use your laptop or smartphone to enhance your learning. If you decide to do your own work and not follow the lecture, please leave the classroom. If you are using your phone for activities not related to this course, please leave the classroom.
(3) Avoid disruptive behavior: please minimize any side conversations, or any actions that distract others from learning.

Course Content
Chapter 10: Parametric Equations and Polar Coordinates
10.1: Curves Defined by Parametric Equations
10.2: Calculus with Parametric Curves
10.3: Polar Coordinates
10.4: Areas and Lengths in Polar Coordinates

Chapter 11: Infinite Sequences and Series
11.1: Sequences
11.2: Series
11.3: The Integral Test and Estimates of Sums
11.4: The Comparison Tests
11.5: Alternating Series
11.6: Absolute Convergence and the Ratio Test
11.7: Strategy for Testing Series
11.8: Power Series
11.9: Representations of Functions as Power Series
11.10: Taylor and Maclaurin Series
11.11: Applications of Taylor Polynomials

Chapter 12: Vectors and Geometry of Space
12.1: Three-Dimensional Coordinate Systems
12.2: Vectors
12.3: The Dot Product
12.4: The Cross Product
12.5: Equations of Lines and Planes
12.6: Cylinders and Quadric Surfaces

Chapter 13: Vector Functions
13.1: Vector Functions and Space Curves
13.2: Derivatives and Integrals of Vector Functions
13.3: Arc Length and Curvature
13.4: Motion in Space: Velocity and Acceleration

Academic Calendar:

January 6: First day of winter quarter

January 19: Last day to add 12-week classes

             Last day to drop classes without a W

January 20 (Monday): Martin Luther King Jr Holiday (no class)

February 14-17 (17th is Monday): President's Day (no class)

February 28: Last day to drop classes with "W"; please read the important notes below regarding the withdrawal policy. To withdraw from this class, go to portal where you register this class, change the status from "registered" with "withdraw". After you are done, please double-check your status.

Important Note: It is student's responsibility to drop or withdraw the class if that student decides not to finish the class. After the last day to withdraw is passed, student cannot withdraw from the class.

March 24-28 (week 12th): Final exam's week.

For Instructors Only:

January 21th (Tuesday): Census Day

Grades must be submitted by Wednesday, April 2nd, by midnight

The professor reserves the right to make changes to the syllabus, including project due dates and test dates (excluding the officially scheduled final examination), when unforeseen circumstances occur. These changes will be announced as early as possible so that students can adjust their schedules.

Student Learning Outcome(s):

• Analyze infinite sequences and series from the perspective of convergence, using correct notation and mathematical precision.
• Apply infinite sequences and series in approximating functions.
• Synthesize and apply vectors, polar coordinate system and parametric representations in solving problems in analytic geometry, including motion in space.

Office Hours:

    M,W   06:15 PM   07:45 PM   By Appointment,In-Person,Email   MLC109