

De Anza College – Spring 2025

MATH 1C-53Z (CRN 49396) Calculus III

Instructor: Lucian Segal, PhD

Class: fully online

Email: segalucian@fhda.edu

Office Hours: MW 1:00-2:00 pm PST (zoom) or by appointment

Prerequisites

Math 1A and 1B with a grade of C or better, or equivalent.

Course Materials

- Textbook: Calculus, by James Stewart, Daniel K. Clegg, Saleem Watson, 9th Edition, ISBN-13: 9780357711491, Cengage Learning
- Instructor notes

Calculator

A graphing calculator (e.g TI-83/TI-84, TI-nspire CX CAS) is recommended.

Tips for Success

- Participate actively in class discussions and office hours
- Do not fall behind on assignments, work problems/practice every day
- Review old material constantly (brush up on math 1A and 1B)
- Make use of tutoring and online resources

Course Objectives

- Examine sequences and series
- Examine and apply various convergence tests for infinite sequences and series
- Use power series to represent functions, and use polynomials to approximate them
- Examine the polar coordinate system, and graph, differentiate, and integrate polar functions
- Investigate vectors in 2D and 3D and perform vector operations
- Determine equations of lines and planes in 3D
- Examine vector functions and parametric curves, and graph, differentiate and integrate curves in parametric form. Compute the length of a curve.

Student Learning Outcomes

- 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 coordinates and parametric representations in solving problems in analytic geometry, including motion in space.

Homework and Quizzes

Homework will be assigned each week and will be due by 11:59 pm on the following Monday. Students are responsible for showing work in a neat and orderly manner. Correct answers with no work will not be given credit. Homework will be graded on correctness, completeness, and presentation. A maximum of three (3) late homeworks will be accepted per quarter, and will be given a maximum of 75% credit. Homework solutions should be uploaded to canvas (pdf preferred, doc, docx okay too).

Quizzes will be given approximately once a week and will be similar to the homework and class examples. There are no make-up quizzes. The lowest quiz score will be dropped.

Exams

There will be two one-hour midterm exams given during the quarter. Make-up midterms will only be given in extraordinary circumstances. A mandatory comprehensive final exam will be given at the end of the quarter. The final exam must be taken at the

officially scheduled time. There is no make-up final exam. The dates for the exams will be announced later.

Grading Policy

- Homework..... 20%
- Quizzes.....25%
- Each midterm exam.....15%
- Final exam.....25%

A+: 98-100

B+: 87-88

C+: 74-77

F: 0-54

A: 92-97

B: 80-86

C: 65-73

A-: 89-91

B-: 78-79

D: 55-64

Attendance Policy

Students are expected to check posted assignments/discussions into canvas often and show signs of actively participating in the course. Students who appear to be inactive for more than 1.5 weeks may be dropped by the instructor. If a student decides not to continue with the course, it is the student's responsibility to officially drop the course. Failure to do so may result in a grade of F for the course.

Academic Honesty Policy

Students are responsible for keeping themselves informed of the De Anza College Policy on Academic Integrity. Cheating will not be tolerated and may result in receiving a zero on the exam or an F for the course and being reported to the Dean of Students Office for possible disciplinary action.

<https://www.deanza.edu/policies/academic-integrity.html>

Accommodations for Students with Disabilities

Students with disabilities who believe that they may need accommodations in this course are encouraged to contact Disability Support Services (408-864-8753) or

Educational Diagnostic Center (408-864-8839) as soon as possible to ensure that such accommodations are arranged in a timely fashion.

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:

Zoom M,W 1:00 PM - 2:00 PM

Zoom T,TH 1:00 PM - 2:00 PM