

DE ANZA COLLEGE — FALL 2026

MATH 1C-23: Calculus III

Course Syllabus | Tuesdays & Thursdays, 6:30 PM – 8:45 PM

1. Course & Instructor Information

Instructor: Sepideh Soltani, Ph.D.

Email: soltanisepideh@fhda.edu /
Canvas Inbox

Class Meetings: Tuesdays & Thursdays,
6:30 PM – 8:45 PM

Office Hours: Thursdays, 5:00 PM –
6:00 PM @ PST-Village (S-55)

Prerequisite: MATH 1B / 1BH (Grade of
C or better)

Course Platform: Canvas

Textbook: Calculus III ([De Anza OER
LibreTexts](#))

Calculators: Graphing or Scientific
Calculator recommended

2. Course Description & Student Learning Outcomes (SLOs)

This course is the third component of the calculus sequence at De Anza College, focusing on infinite series, multivariable representations, vectors, and vector-valued functions.

Course Objectives:

- Examine sequences and series 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; graph, differentiate, and integrate polar functions.
- Investigate vectors in two and three dimensions and perform vector operations.
- Examine vector functions and parametric curves; graph, differentiate, and integrate parametric curves; compute arc length.
- Determine the equations of lines and planes in 3D space.

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 (Power, Taylor, and Maclaurin series).

3. Synthesize and apply vectors, polar coordinate systems, and parametric representations in solving problems in analytic geometry, including motion in space.

3. Homework and Quizzes Policy

Homework Policy: Homework problems will be assigned regularly and posted on Canvas each week. Homework for an entire week is due by **11:59 PM PST on Monday** of the following week. Assignments provide essential preparation for midterms and the final exam.

- **Less than 24 hours late:** 10% deduction
- **24 to 48 hours late:** 25% deduction
- **2 to 7 days late:** 35% deduction
- **More than 7 days late:** 50% deduction

Quizzes Policy: Quizzes will be given approximately once a week and feature problems similar to homework and lecture examples. Quizzes are take-home, posted on Canvas on Fridays, and due back by **11:59 PM PST on the following Monday** (starting Week 2). **Late quizzes are not accepted under any circumstances and will receive zero credit.**

Note: Please submit clear, legible solution files (PDF format) via Canvas for all homework assignments and quizzes.

4. Grading Policy & Course Evaluation

Grades will be calculated based on weekly Canvas homework assignments, weekly take-home quizzes, two 1-hour in-class midterm exams, and a mandatory comprehensive final exam.

Evaluation Component	Weight	Details & Policies
Homework Assignments	20%	Assigned weekly on Canvas. Due Mondays at 11:59 PM PST. Tiered late deduction policy applies.
Take-Home Quizzes	15%	Posted Fridays (Starting Wk 2) on Canvas; due Mondays at 11:59 PM PST. No late quizzes accepted.
Midterm Exam 1 (1 Hour)	20%	In-class during Week 4 (Thu, Oct 15: 6:30 PM – 7:30 PM).

Midterm Exam 2 (1 Hour)	20%	In-class during Week 8 (Thu, Nov 12: 6:30 PM – 7:30 PM).
Comprehensive Final Exam	25%	Mandatory comprehensive final on Thursday, Dec 10 (6:15 PM – 8:15 PM).

Grading Scale:

A+: 98–100%	A: 92–97%	A-: 89–91%	B+: 87–88%	B: 80–86%
B-: 78–79%	C+: 75–77%	C: 70–74%	D: 60–69%	F: < 60%

5. Tentative Course Schedule

The class meets twice weekly on Tuesdays and Thursdays from 6:30 PM to 8:45 PM. Textbook alignment corresponds to Calculus III (De Anza College OER LibreTexts) <https://deanza.commons.libretexts.org/book/math-160472>.

Week	Topics Covered
Week 1	1.1 Sequences 1.2 Series (Infinite Series)
Week 2	1.3 The Integral Test and Estimates of Sums 1.4 The Comparison Tests
Week 3	1.5 Alternating Series 1.6 Absolute Convergence and the Ratio and Root Tests
Week 4	Midterm Exam 1 (Thu, Oct 15) 2.1 Power Series 2.2 Representations of Functions as Power Series (Properties of Power Series)
Week 5	2.3 Taylor and Maclaurin Series 2.4 Working with Taylor Series
Week 6	3.1 Curves Defined by Parametric Equations 3.2 Calculus with Parametric Curves
Week 7	3.3 Polar Coordinates 3.4 Areas and Lengths in Polar Coordinates

Week 8	Midterm Exam 2 (Thu, Nov 12) 4.1 Three-Dimensional Coordinate Systems 4.2 Vectors 4.3 The Dot Product
Week 9	4.4 The Cross Product 4.5 Equations of Lines and Planes
Week 10	4.6 Cylinders and Quadric Surfaces 5.1 Vector Functions and Space Curves
Week 11	5.2 Derivatives and Integrals of Vector Functions (Calculus of Vector-Valued Functions) 5.3 Arc Length and Curvature 5.4 Motion in Space: Velocity and Acceleration No Class Nov 26 (Thanksgiving Holiday)
Week 12	Finals Week (No Topics) Mandatory Comprehensive Final Exam: Thursday, Dec 10 (6:15 PM – 8:15 PM)

Important Administrative Dates:

- October 4: Last day to add 12-week classes & last day to drop without a 'W'
- November 11: Veterans Day holiday – no classes; campus closed
- November 13: Last day to drop classes with a 'W'
- November 26–27: Thanksgiving holiday – no classes; campus closed
- December 7–11: Final Exams Week

6. Course Policies & Academic Resources

Attendance Policy: Attendance at all class sessions is expected (Tuesdays and Thursdays, 6:30 PM – 8:45 PM). Missing more than one (1) class session during the first two weeks, or more than three (3) classes prior to the withdrawal deadline, may result in being dropped by the instructor. However, if you intend to drop the course, it remains your official responsibility to do so via MyPortal.

Academic Integrity: Students must adhere to the De Anza College Policy on Academic Integrity. Cheating, copying, or improper collaboration will result in a zero on the

assignment/exam and possible referral to the Dean of Students Office. Review details at <https://www.deanza.edu/policies/academic-integrity.html>.

Classroom Conduct: Disruptive behavior (including non-class device usage or excessive noise) impairs learning and will be referred to Student Conduct. Review policy at <https://www.deanza.edu/policies/conduct.html>.

Disability Accommodations: Contact Disability Support Programs & Services (DSPS) at 408-864-8753 or the Educational Diagnostic Center at 408-864-8839 to set up approved accommodations early in the term (<https://www.deanza.edu/dsps/>).

Tutoring Services: Free peer tutoring is available at the De Anza Student Success Center (S-43) and online via NetTutor on Canvas. Visit <https://deanza.edu/studentssuccess/> for schedules.

7. Tips for Success

Aim for mastery, not just memorization. True understanding means you can explain concepts and apply them confidently in future STEM courses.

1. **Work daily:** Spend time on math every day and keep track of deadlines.
2. **Stay on schedule:** Follow the course calendar closely and take good notes.
3. **Come prepared:** Complete assigned readings and problems before lecture.
4. **Be present:** Attend every class and minimize distractions.
5. **Embrace challenge:** Work through tough problems independently before seeking answers.
6. **Form study groups:** Connect with at least 3 classmates to collaborate.
7. **Submit all work:** Complete every assignment, quiz, and exam on time.
8. **Prepare systematically:** Use quizzes to test your understanding before exams.
9. **Ask for help early:** Reach out to your peers, tutors, or instructor as soon as questions arise.
10. **Practice discipline:** Silence phone notifications and stay focused during study sessions.

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:

1:00 PM - 1:30 PM

PST-Village (Room S-55)

M

5:00 PM - 6:00 PM

PST-Village (S-55)

TH