Annual Integrated Planning

Mathematics for 2026-2027

Describe Department/Unit

Connection to College Mission

The Mathematics Department at Cerro Coso Community College plays an important role in preparing students to achieve their educational goals. The department currently offers math courses at the transfer level as well as an online math degree. Beginning in the fall of 2019, the department eliminated all non-transfer level classes resulting in all entering students being placed into a transfer level class. Beginning in 2023, the math department now also offers a College Algebra course for non-STEM students. This course provides remedial math and Algebra instruction to students wanting to prepare for other math courses and also provides students with another option for a transfer-level math course.

The department's curriculum supports the mathematical needs of other disciplines and programs. The department's courses help students develop logical reasoning and problem-solving skills which form a foundation for their careers and future study. The Mathematics Department at Cerro Coso Community College offers classes which support the requirement for the AA and AS degrees, vocational/ technical programs, and transfer to the university. We have entered into agreements and developed equivalencies with the California State Universities (CSU) and University of California (UC) systems. When our students transfer to the CSU or UC system, credits they earn in the mathematics department are transferable. This is also an indication that these transfer students from Cerro Coso Community College will be successful in completing higher degrees. Courses in the math degree now are in alignment with C-ID descriptors to increase the options students have in transferring to other colleges. The Mathematics Department offers math courses at the Indian Wells Valley (IWV), Eastern Sierra College Center (ESCC), and Tehachapi Center as well as online. Our math courses are also offered at the Tehachapi Correctional facility.

In addition, Cerro Coso's math curriculum continues to be offered as dual enrollment courses at Tehachapi, Cal City and Boron High Schools. Math Dual Enrollment courses have recently been added to curriculum at high schools in Bishop and Bakersfield. Currently, the department has five full-time faculty and several adjunct faculty to provide mathematics instruction to students in our broad geographic range.

Report on Improvements Made and Gaps Identified in the Prior Year

Student Equity

Actions Taken

Steve Rogers, Michael Bonner, Michael Chiang, and Dean Bernsten attended the A2Mend equity conference in March 2025. Conference topics of discussion included theories and practices applied to equity gaps experienced by African American male students.

Gaps Identified

Completion Gap

Compared to overall college completion rate, completion gaps in mathematics were identified at the KRV campus, in dual enrollment courses, and in traditional courses.

Success Gap

Compared to the overall college success rate, success gaps in mathematics were identified in all classes, at the East Kern campus, in RSP classes, at the KRV campus, at the IWV campus, among women students, among Hispanic/Latino students, among non-economically disadvantaged students, first generation students, students whose parents have an unknown education, students on financial aid, students in dual-enrollment courses, students in rising scholar courses, and students in traditional classes.

Outcomes Assessment

Loop-Back Improvements Made

All outcomes assessments were satisfactory. No improvements were deemed necessary.

Schedule of Assessments

MATH C053 Preparation for Statistics (Effective Fall 2022)
Not Due to Be Assessed This Year or Last Year

MATH C055 Intermediate Algebra (Effective Fall 2022)
Not Due to Be Assessed This Year or Last Year

MATH C110 College Algebra for Non-STEM Majors (Effective Fall 2022)
Not Due to Be Assessed This Year or Last Year

MATH C130 Finite Mathematics (Effective Fall 2018)
Will Assess This Year

MATH C131 Basic Functions and Calculus for Business (Effective Fall 2020)
Will Assess This Year

MATH C141 Precalculus: Algebra (Effective Spring 2021)
Will Assess This Year

MATH C142 Precalculus: Trigonometry (Effective Fall 2020)
Will Assess This Year

MATH C151 Analytic Geometry and Calculus I (Effective Summer 2021)
Assessed Last Year

MATH C151S Analytic Geometry and Calculus I Support (Effective Fall 2025)
Will Assess This Year

MATH C152 Analytic Geometry and Calculus II (Effective Fall 2019)
Will Assess This Year

MATH C251 Analytic Geometry and Calculus III (Effective Fall 2018)
Will Assess This Year

MATH C255 Ordinary Differential Equations (Effective Spring 2019)
Will Assess This Year

MATH C257 Linear Algebra (Effective Fall 2018)
Will Assess This Year

STAT C1000 Introduction to Statistics (Effective Fall 2025)
Will Assess This Year

STAT C1000H Introduction to Statistics: Honors (Effective Fall 2025)
Will Assess This Year

Outcomes Assessment: Results of Last Year's Assessments

SLO for course MATH C151 Analytic Geometry and Calculus I (Effective Summer 2021) — None 1. Evaluate functions analytically and graphically using limits, derivatives, definite, and indefinite integrals.
No assessment result entered.

SLO for course MATH C151 Analytic Geometry and Calculus I (Effective Summer 2021) — None 2. Apply Epsilon-Delta proofs to determine limits and employ the Fundamental Theorem of Calculus to model and solve problems.
No assessment result entered.

SLO for course MATH C151 Analytic Geometry and Calculus I (Effective Summer 2021) — None 3. Define the limit of a function, and calculate limits using the limit laws.
No assessment result entered.

SLO for course MATH C151 Analytic Geometry and Calculus I (Effective Summer 2021) — None 4. Differentiate polynomial, exponential, trigonometric, and logarithmic functions, as well as products, quotients and compositions.
No assessment result entered.

Outcomes Assessment: Missed Targets

Program Review

Name: Mathematics

Year of Last Program Review

2025

Actions Taken in the Prior Year to Address Strategies

No actions taken.

Strategies Still to be Addressed

These strategies will be addressed when the current department chair writes the program review for the 2026 to 2027 academic year.

Last Year's Initiatives

Name: Increase success rates

Action Plan

Offer more math sections on-ground.

Lead Measure of Success

More math courses scheduled on ground.

Lag Measure of Success

An upward trend in math course success rates.

Initiative Status

In Progress

Summarize actions taken on this initiative

The number of on-site math classes is decreasing. Enrollment numbers do not support increasing the number of offered on-site classes. The data support that vast majority of students prefer the online environment. In this department chair's opinion, offering more on-site classes is ill advised and would not result in more students enrolling in on-site classes.

Name: Improve Online Math Teaching

Action Plan

Make documents in online classes accessible.

Faculty attend a conference or webinar in online teaching and implement at least one new teaching strategy into an online course.

Investigate new online exam proctoring services.

Investigate procedures on making our own accessible video lectures that could be shared among online math instructors to upload into their courses.

Lead Measure of Success

Reporting out at each department meeting of progress made in any of the action steps.

Two or more full-time faculty attend online teaching conference or webinar.

Early attempts at making a video lecture.

Lag Measure of Success

Lag measures would be increased enrollments and better completion rates in online math courses.

Initiative Status

In Progress

Summarize actions taken on this initiative

The number of online sections offered increases from semester to semester. This is not because of any departmental action. Instead, the demand for online math classes has increased dramatically over the last two years. Of course this is due to the California Virtual Campus. Courses like Finite Mathematics, Business Calculus, all three calculus courses, Differential Equations, and Linear Algebra which are typically offered as a single section in only one semester per year are now are now filling multiple sections in each semester.

Name: Standardize the lab portion of the class for all sections of MATH C110 and MATH C121

Action Plan

Math chair will collect a math skills review topic outline for just the lab portion of the class from all MATH C110 and MATH C121 instructors.

There will be discussion and a reporting out of how well the anonymous tabulated skills review topics reflect the current COR.

Lead Measure of Success

A lead measure will be the knowledge of what remedial skills are being reviewed in the lab.

Another lead measure will be the knowledge of what remedial skills are not being reviewed in the labs.

Discussions will take place in department meetings about any gaps in what is actually being reviewed in the lab portion of the class and what is stated in the COR.

Lag Measure of Success

CORs for MATH C121 and MATH C110 are updated to reflect a more standardized list of topics for the lab that better fit the deficient math skills of the students in these classes. This will come as a result of the department discussions.

Individual instructors change the topics they review with students in the lab portion of the class to be more in line with the current or updated COR.

Initiative Status

Completed

Summarize actions taken on this initiative

Completed by the previous chair.

Initiatives for Next Academic Year

Summer On-Line Ramp Up

Is this a multi-year Initiative? Y

Specific Action Steps to be Taken

Offer all online classes in the curriculum during summer terms.

Early Observational Data, or "Lead" Measure(s)

In summer 2025, multiple sections of all offered courses were at or near full. The exceptions to this were Math C141 and C142, where one section per course was offered. Remarkably, four sections of Math C251 were filled. I propose we add these classes to last summer's offerings: Maths C130, C131, C255 and Math C257.

Do you request help developing these instruments? N

Institutional Performance Data, or "Lag" Measure(s

Collect and compile completion and success statistics on all offered summer classes; especially those not normally offered in summer.

Person Responsible

Dean

What unit gap or institutional goal does this address?

It addresses a 2- or 5- year program review strategy

Requested Resources

#43 Other Needs: Custodial Funds

Is this a one-time request or an on-going request? Ongoing

Amount Requested $400.00

Is this request supported in your initiatives or elsewhere? No

Description/Explanation

These funds will applied to subscription renewals of the MathType program.

Supporting Facts/Data

The entire department teaches online: either entirely or partially. Most instructors use MathType to assist in homework- and test-answer explanations.

Impact on the Department/Unit

These funds have a positive impact on the department. As previously mentioned, most instructors use MathType to enhance their explanations.

Impact on Operational Efficiency

This will positively impact the department's operational efficiency. MathType easily integrates into MS Word and is very user friendly.

Faculty Position Requests

Mathematics

Locations

Justification

No staffing requests for the 2026 - 2027 academic year.

Classified Position Requests

Proctor Administrator

Locations

CC Online

Justification

The vast majority of Cerro Coso's students take their mathematics courses online. With the advent of California Virtual Campus, the number online sections, the number of filled online sections, and the frequency at which the department offers online classes during semesters they are not normally offered have all dramatically increased. Success rates in these classes are abnormally high, and often times the modal letter grade is an A. Although the opinion is

not unanimous, some instructors believe proctors are necessary to ensure the academic integrity of our program.

Salary Grade

Unknown

Number of Months per Year

10

Number of Hours per Week

40

Salary Amount

Unknown

Math AUP Budget Request Worksheet for FY27

Fund	Org Description	Account Description	Program Description	Activity	Location	2025 Adopted Budget	2025 Actual Expenses	2026 Adopted Budget	2027 Request	Notes	Increase?	If requesting increase of %5 or more: In planning document	Data?	Relevance?	Operational Efficiency?
GU001	Mathematics Departme	Employee Travel	Mathmatic General		CB			$ 400.00	$400.00		no				
GU001	Mathematics Departme	Employee Travel	Mathmatic General		CI										
LR001	Mathematics Departme	Software Licensing/Maintenance Svcs	Mathmatic General		CI	$ -	$ 93,121.08	$ 50,000.00	$50,000.00	Houck: Paid for online access codes. Not sure if this can keep going.	no	AUP			