

Mathematics Department

AUP for Academic Year 2025-2026

October 2024

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 transfer level as well as an online math degree. Beginning in the fall of 2019, the department implemented a plan to accelerate students through the math sequence by placing all entering math students into either a transfer-level College Algebra or for non-STEM majors, a Beginning Probability and Statistics course with a lab to provide Algebra remediation. 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

Some instructors used zero cost or reduced costs textbooks to reduce costs for economically disadvantaged students.

Some instructors held out of class tutoring during their office hours while other instructors held tutoring sessions via Zoom.

Instructors provided testing accommodations for DSPS students. Usually this in the form of extended time on exams.

Instructors continue to make online sample problems accessible by using MathType and other equation editing programs.

One instructor helped identify a student who was in great financial and mental health need. They were able to help connect that student with the vice president and get the student financial help, food and therapy. It probably made the difference between the student dropping out versus graduating, enrolling in CSUB and getting a job as a police dispatcher while working on her degree.

Another instructor teaches math classes that are zero cost. This has helped the economically disadvantaged students which have been a target group in attempting to raise success rates. Since MATH C121 is a required course for several programs (including some zero-cost programs), the department has routinely scheduled this instructor to teach MATH C121 both onsite and online.

One math faculty lead the Rainbow Club which includes a diverse group of students from Cerro Coso in regular meetings and a planned event off campus in the past year. The same instructor manned a booth at a native American event in Bishop. While these activities don't affect math success rates, they do help to include and welcome a diverse group of students.

There were significant gaps in success for both men and woman in math when compared to collegewide.

All disaggregate groups had a significant lower math success gap compared to college-wide data except for American Indian, Asian, and Filipino. Significant success gaps were seen for African Americans, 2 or more races, and distance education students. It was interesting to note that math completion rates were higher than college-wide for the IWV campus and dual enrollment courses.

Outcomes Assessment: Loop-Back Improvements Made

Actions taken in the prior academic year

Over the past year, instructors continued to provide more student/ teacher interaction in online classes as the department seeks to narrow the success gap between traditionally taught courses and online courses by providing more student support as well as making students feel more connected in the online environment.

Instructors teaching online Calculus courses have used MathType within their canvas courses in order to present equations in an accessible format.

Instructors continue to offer office hours and tutoring on campus, via Zoom in on site and online classes. Over the past year, instructors added more worked out solutions in their Canvas course shells which helps guide students toward proper mathematical procedures and methodology.

Outcomes Assessment: Results of Last Year's Assessments

MATH C110

Target Met?

Yes

MATH C121 Online and hybrid

Target Met?

Did Not Assess

MATH C130

Target Met?

Did Not Assess

MATH C131

Target Met?

Did Not Assess

MATH C141

Target Met?

Did Not Assess

MATH C142

Target Met?

Did Not Assess

Outcomes Assessment: Missed Targets

Type:

SLO

Target Missed/Gap Detected:

Type of Gap:

Analysis and Plan for Improvement:

There were no SLOs that missed the 70% target in the past year.

Anticipated Semester for Implementing Planned Improvements:

Anticipated Semester of Next Assessment:

MATH C110

Type:

SLO

Target Missed/Gap Detected:

Type of Gap:

Analysis and Plan for Improvement:

Anticipated Semester for Implementing Planned Improvements:

Anticipated Semester of Next Assessment:

Outcomes Assessment: Schedule of This Year's Assessments

MATH C130 will be assessed fall 2025

MATH C131 will be assessed spring 2025

MATH C141 will be assessed fall 2025

MATH C142 will be assessed spring 2025

MATH C151 will be assessed fall 2025

Program Review

Mathematics

Year of Last Program Review:

2021

Actions Taken in the Prior Year to Address Strategies:

The only strategy needing to still be addressed that has had some progress made is the 5-year goal of improving online instruction. While faculty have not had the opportunity to attend a professional conference as was suggested in the plan initially, faculty have taken steps to improve and augment their online classes on an individual basis. Math faculty regularly discuss strategies and share what works well and what doesn't at department meetings and in regular email communication.

Strategies Still to be Addressed:

2 year - Select additional electives for the math program.

5 year - Identify where declared math majors are stopping out of the program.

5 year - Augment online math instruction by attending a professional development event.

5 year - Improve PLO assessment procedure to focus solely on math majors.

Last Year's Initiatives

Move forward in implementing MATH C110 into the curriculum

Over the last year, the math faculty teaching MATH C110 have been made aware of the need to adhere to the topic outline in the MATH C110 COR in planning their course. The department over the last year has come to a consensus as to how to structure and standardize the remedial math and Algebra skills that are to be reviewed in the lab portion of the class.

Improve Online Math Teaching

Math faculty have made improvements in their online courses. They have shared ideas via ongoing email discussions and collaborated at department meetings about methodologies that have worked and those that have not in their online courses.

Select Additional Electives for Math Degree

No action has been taken to develop an exit survey at this point. The department will consult with the Institutional Researcher for help with this initiative.

Reminder of Initiatives for the Current Year

Reminder of Initiatives for the Current Year

Increase success rates

Improve Online Math Teaching

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

Plan Initiatives for Next Year

Initiatives for Next Academic Year

Add a Calculus 1 Corequisite course to the curriculum for AB 1705 compliance.

Is this part of a multiyear initiative?

Yes

Specific Action Steps to be Taken:

Design a topic outline and write a COR for the corequisite course.

Take the course through the CIC approval process in fall 2024.

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

Course Outline of Record is taken through CIC.

Course is approved and offered in fall 2025

Does the department request help developing these instruments?

No

Institutional Performance Data, or "Lag" Measure(s):

Course is added to the course catalog and fall 2025 schedule.

Person Responsible:

Math Chair and math faculty

Unit gap or institutional goals addressed:

Strategic Goal 1 It maximizes student success and access.

Raise on ground success rates by increasing MATH C110 enrollments

Is this part of a multiyear initiative?

Yes

Specific Action Steps to be Taken:

Inform students why they should enroll in MATH C110.

Communicate with counselors as to why non-STEM students should be encouraged to take MATH C110 instead of MATH C141.

Create advertisement for MATH C110 online and create brochures that advertise the course.

Offer MATH C110 on ground at IWV and ESCC.

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

Brochures and other marketing of the MATH C110 course

MATH C110 added to on-ground schedules

Increased enrollments of non-STEM majors in MATH C110

Does the department request help developing these instruments?

Yes

Institutional Performance Data, or "Lag" Measure(s):

Increased enrollments in MATH C110

Overall higher math completion and success rate observed in data

Person Responsible:

Math Chair and math faculty

Unit gap or institutional goals addressed:

Strategic Goal 1 Maximize student success.

Select Additional Electives for Math Degree

Is this part of a multiyear initiative?

Yes

Specific Action Steps to be Taken:

Investigate what electives are offered at other colleges with math degrees.

Implement a student exit survey to determine where math students are transferring and inquire what electives are needed by math majors.

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

Does the department request help developing these instruments?

Yes

Institutional Performance Data, or "Lag" Measure(s):

Person Responsible:

Math Chair and math faculty

Unit gap or institutional goals addressed:

Evaluate Resource Needs

Facilities

There are no additional facility needs for next year.

Information Technology

There are no information technology requests at this time.

Marketing

The department requests funding for brochures, flyers, or online advertising for Calc. 1 corequisite and MATH C110 course.

Professional Development

The department requests funding for travel expenses and lodging for two full-time faculty to attend a conference related to teaching math online.

Other Needs

There are no other needs at this time.

Staffing Requests

1000 Category - Certificated Positions

Mathematics

Location:

Justification:

The department is not requesting a full-time faculty position at this time.

2000 Category - Classified Staff

Classified Staff Request

Location:

Salary Grade:

Number of Months:

Number of Hours per Week:

Salary Amount:

Justification:

No classified staff request at this time

AUP Budget Worksheet for Math - FY25

F	Org Description	Account Description	Program Title	Activity	Location	2024	2024	2025	2025	Notes	Increase?	If requesting increase of %5 or more		
						Adopted Budget	Actual Expenses	Adopted Budget	Request			In planning document	Date?	Relevance?
GU001	Mathematics Department	Employee Travel	Mathmatic General		CI	\$	\$	1,244.11						
GU001	Mathematics Department	Employee Travel	Mathmatic General		CB	\$	\$	2,088.32						
GU001	Mathematics Department	Software Licensing/Maintenance Svcs	Instrnl Support/Academic Admin		CI	\$	\$	21.86						

Resource Requests														
Type of request	1 time or ongoing?	Requested amount	description/explanation							In planning document	Date?	Relevance?	Operational Efficiency?	
Marketing	ongoing	\$ 1,000.00	Targeted Paper Materials to Promote Math and Social Media Promotion							AUP	We've never had marketing funds before. 1,000	Students currently don't know which math class	This could be combined	with other LAS requests.
Other		\$300	MathType Subscription (annual)											