



2024-25 Annual Program Update - Geology

Program Overview

Please verify your program's mission statement and program's learning outcomes below, and make any corrections necessary.

Mission Statement

Geology addresses rocks, volcanoes, glaciers, landslides, earthquakes, etc. all in the context of the relatively new theory of plate tectonics describing how the Earth works. The geology of California is special since we live on the active San Andreas transform plate boundary (hence the earthquakes) which evolved from the previously existing subduction zone plate boundary (responsible for the California Coast Ranges and the Sierra Nevada).

Our mission includes:

- *Preparing students for transfer and careers in Geology.*
- *Stimulating student curiosity about how the Earth works (earthquakes, volcanoes, tsunamis, hurricanes etc.) and why California is such an interesting place.*
- *Providing students with evidence about Earth processes so they can make informed choices about using resources.*

Geology Programs at CoA as of 11/1/2024:

Geology - A.S. Degree (active)

A.S. for Transfer in Geology (approved at CoA 3/2/2021, still waiting for implementation)

Geology - Certificate of Achievement (active)

Program Learning Outcomes (PLOs) are the same for all GEOL programs listed above at CoA:

1. Demonstrate understanding of the scientific method as it relates to Earth Science.
2. Demonstrate analytical and critical thinking skills required to understand Geological processes in the past and present with respect to future problems and solutions.
3. Describe and communicate physical and chemical Earth processes in preparation for transfer and/or employment in Geology or related fields.

List your program faculty and/or staff, and indicate whether they are full-time or part-time.

- Stephen Self, P/T faculty member at CoA since 2018
- Nidhi Patel, P/T faculty member brought over from Laney to fill in for fall 2023 semester, is available as back-up.

There are no F/T GEOL Faculty members at CoA. This APU was completed by Jayne Smithson (Physical Sciences Cluster Chair) as required by STEM Dean, rather than GEOL P/T faculty member(s).

Describe your current utilization of facilities, including labs and other space.

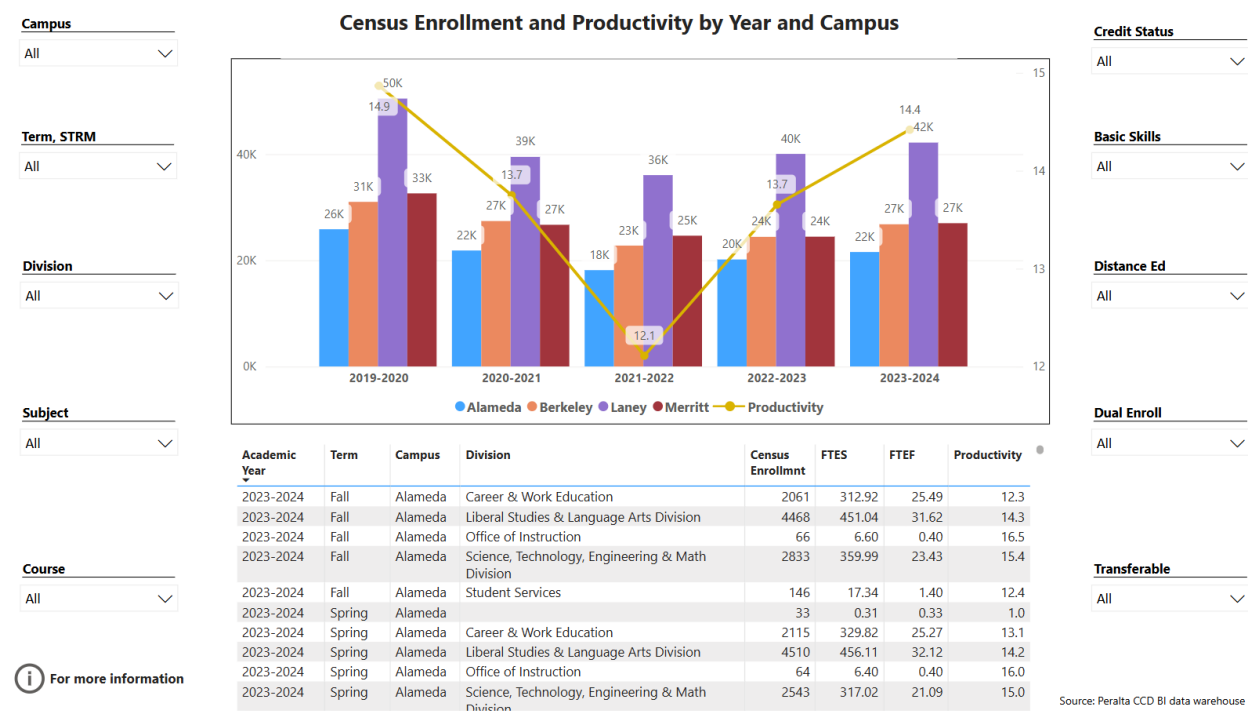
Geology courses were taught entirely online during COVID-19 and continued to be offered online since that time because there was no dedicated classroom space available for the GEOL/GEOG specimens collection necessary for in-person course delivery. Geology was promised a dedicated lecture room (D-114) and lab room (D-113), to be shared with Geography faculty members for spring 2023, but these did not materialize. Geology courses will continue to be offered online until this situation is resolved.

The Program Goals below are from your most recent Program Review or APU. If none are listed, please add your most recent program goals. Then, indicate the status of this goal, and which College and District goal your program goal aligns to. If your goal has been completed, please answer the follow up question regarding how you measured the achievement of this goal.

Program Goal	Expand Geology course semester offerings at CoA to support an integrated Earth Science Program (Geology, Geography and Chemistry) and STEM student success.
Status: In-Progress or Complete? If complete, give a brief description of how you measured the goal completion.	Plans for GEOL expansion are on hold at the moment, pending review of CoA overall reduced budget allocations for 2024-2025.
Which college or district goal is aligned with your program goal?	District Goals: Advance Student Access, Equity, and Success, Build Programs of Distinction CoA Goals: Advance COA teaching and learning. Build programs of distinction.
Program Goal	Participate in STEM outreach programs to expand student awareness of their potential to succeed in science-based careers.
Status: In-Progress or Complete? If complete, give a brief description of how you measured the goal completion.	There are limited opportunities for participation in STEM outreach programs as requests to participate in STEM Dual Enrollment and/or help build courses in proposed Environmental Sciences discipline (hydrology, for example) have not received response or encouragement.
Which college or district goal is aligned with your program goal?	District Goals: Advance Student Access, Equity, and Success, Build Programs of Distinction CoA Goals: Advance COA teaching and learning. Build programs of distinction.

Program Goal	Update and expand Geology lab specimens and equipment for analysis
Status: In-Progress or Complete? If complete, give a brief description of how you measured the goal completion.	Budget cuts and other CoA Administration academic interests have put this GEOL goal on hold.
Which college or district goal is aligned with your program goal?	District Goals: Advance Student Access, Equity, and Success, Build Programs of Distinction CoA Goals: Advance COA teaching and learning. Build programs of distinction.

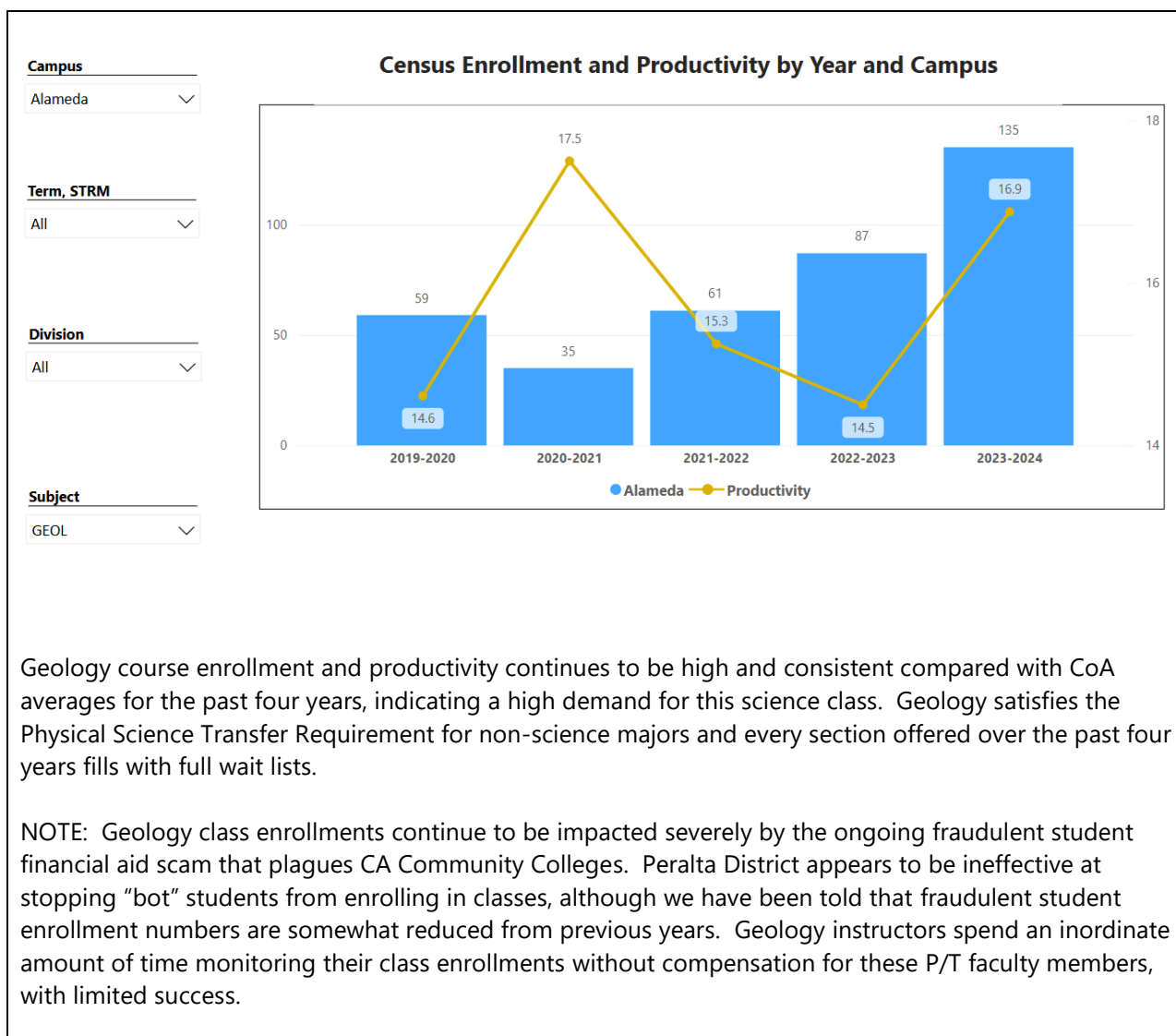
Program Update – Enrollment Trends, Success Rates, and Degrees & Certificates



Enrollment Trends Power BI dashboard

Note: Please consider the most recent years when answering the questions below. Data with default filter is provided below. Use the link above to explore the data further.

Discuss recent enrollment trends. District-wide enrollment trends are shown above for comparison.



[Course Completion Power BI Dashboard #1](#)

[Course Completion Power BI Dashboard #2](#)

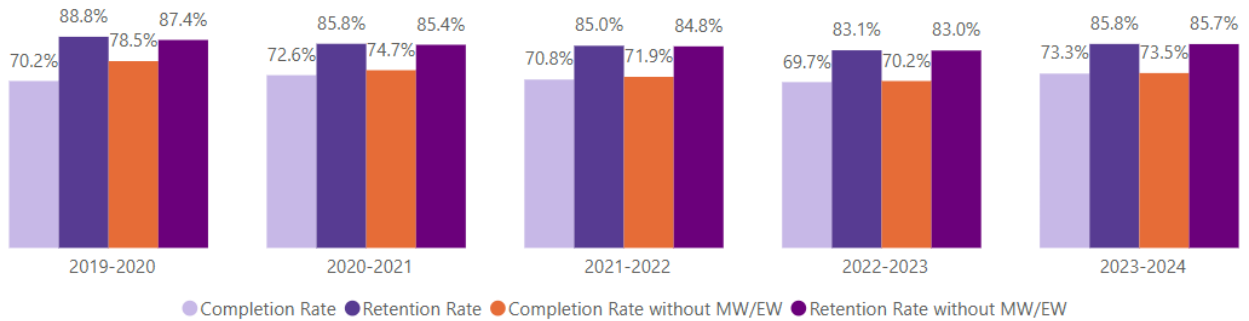
[Institutional Set Standards](#)

Consider your course completion rates in recent years (% of student who earned a grade of "C" or better). Data with default filter is provided below. Use the link above to explore the data further.

How does the course completion rate for your program or discipline compare to your college's Institutional Set Standard for course completion (70% with stretch goal of 77%)? Also discuss the retention rate for your program or discipline, compared to the college average shown in data below, as well as what the discipline, department, or program has done to improve course completion and retention rates.

College of Alameda

Overall Course Completion and Retention Rates by College



Course Completion and Retention Rates by Student Group or Service Area

Service Area

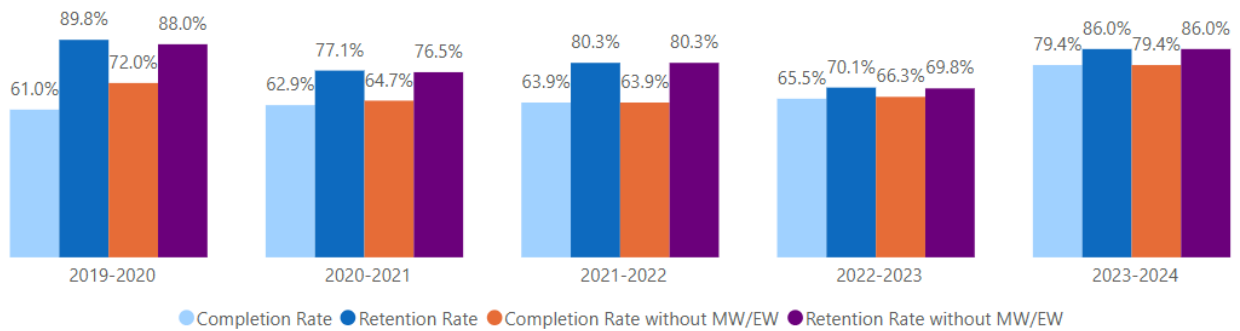
All

Student Group

All

Subject

GEOL



GEOL course retention and completion rates are relatively high for all student groups after accounting for the fraudulent students infiltration and drops after receiving their 2nd financial aid checks.

[Degrees & Certificates Power BI dashboard](#)

Please provide an update on the degrees and certificates offered by the discipline, department, or program. Below data shows the number of degrees and certificates awarded by year, for the past three years. Use the link above to explore the data further.

Although Geology at CoA has had several degree and certificate programs since 2020, no certificates or degrees have been granted because Geology has not been allocated enough FTEFs to offer required courses for this major. We have received several requests from students who are interested in earning Geology AS-T or A.S. degrees and Geology Certificate of Achievement, but we cannot serve these students without higher FTEF allocations to support GEOL programs.

As of Fall 2024, Geology discipline at CoA is resigned to providing support as a highly sought-after Physical/Natural Science course (GEOL 10) for transfer students and A.S. degree students in other majors until such time as funding is available for GEOL course expansions.

Describe any significant changes in the recent years and discuss what the changes mean to your program.

Significant changes to GEOL programs at CoA are clustered around budgetary constraints and lack of designated facilities (classroom location, equipment relocation and specimens storage). There can be no implementation of GEOL goals until budget problems and facilities coordination are achieved. Sadly, these issues are outside of GEOL control.

Describe the department's progress on Student Learning Outcomes (SLOs) and/or Service Area Outcomes (SAOs) since the last Program Review/APU.

Geology SLOs and PLOs were established years ago in CurriQunet META. Geology SLOs continue to be assessed regularly. Geology students at CoA continue to meet or surpass SLO assessment goals. PLOs cannot be assessed until we are able to offer the existing Geology programs to waiting students.

Describe the outcomes and accomplishments from previous year's funded resource allocation request. If your program did not receive any allocations, leave the boxes blank.

Brief description of funded request	Source (any additional award outside your base allocation)	Total Award Amount	Outcome/Accomplishment
A full-time Geology instructor was requested and approved as one of the three new hires at CoA for fall 2023. There has never been a F/T GEOL instructor at CoA, so this request would require a New Hire.			The search was never posted. No hiring committee was formed. The request for a full-time GEOL instructor at CoA appears to be a non-starter, given the current budget constraints.
Rock sample collections, mineral sample collections, thin section sets, bathymetric map of the world, faulting models etc.	Instructional supplies funds 2022-2023	\$610.74	No orders were placed, as there was nowhere to house new specimens or other consumables for student use.
Renovations leading to dedicated lecture and lab teaching space to be shared by Geography and Geology	IELM funds 2022-2023 allocation	\$4,000.00	Not enacted in spite of numerous promises to get this project going.

Prioritized Resource Requests Summary

In the boxes below, please add resource requests for your program. If there are no resource requested, leave the boxes blank.

Resource Category	Description/Justification	Full-Time Equivalent Percentage	Salary Grade (if applicable)
Personnel: Classified Staff			
Personnel: Student Worker			
Personnel: Part Time Faculty	When funding is available please consider hiring more P/T faculty to expand GEOL and teach GEOL offerings.	.20 - .40 load	Experienced but not senior placement
Personnel: Full Time Faculty	Withdrawn		
Personnel: Full Time Faculty, future anticipated need	To be considered far in the future (over 5 years out)		Experienced but not senior placement

Resource Category	Description/Justification	Total Estimated Cost
Professional Development: Department wide PD needed		
Professional Development: Personal/Individual PD needed	Meetings and conferences: Faculty need to stay current in their fields of expertise and research. Travel and registration fees for these meetings need to be covered by COA.	\$1,000 per faculty member recommended annual cost

Prioritized Resource Requests Summary - Continued

Resource Category	Description/Justification	Total Estimated Cost
Supplies: Software	ESRI Arc-GIS license shared with Geography.	varies
Supplies: Books, Magazines, and/or Periodicals		
Supplies: Instructional Supplies	Rock sample collections, mineral sample collections, thin section sets, bathymetric map of the world, faulting models etc.	\$1,000 per funding cycle (Lottery funds)
Supplies: Non-Instructional Supplies		
Supplies: Library Collections	Journal subscriptions to Geology, Geochemistry, Earth and Planetary Science Letters, Journal of Geophysical Research, etc.	\$500

Resource Category	Description/Justification	Total Estimated Cost
Technology & Equipment: New	Petrographic microscopes for student use, scanning electron microscope to be shared with Chemistry and Geography in-person labs.	To be advised. These items are standard equipment for any well-equipped Geology/Geography/Chemistry lab set-up
Technology & Equipment: Replacement		

Prioritized Resource Requests Summary - Continued

Resource Category	Description/Justification	Total Estimated Cost
Facilities: Classrooms	Dedicated smart-room classrooms for lecture and laboratory classes, to be shared with Geography programs. These facilities were promised for active use starting in spring 2023 semester, but did not materialize.	Minimal. Appropriate classrooms already exist in C and/or D buildings at CoA (ground floor spaces)
Facilities: Offices	Office space to be provided for GEOL instructor (or shared with Geography faculty) to hold in-person office hours and meet with students outside of the classroom.	Minimal. Appropriate office spaces already exist in C and/or D buildings at CoA (ground floor spaces)
Facilities: Labs	Dedicated, locking storage space for Geology specimens, maps and teaching supplies. Can be shared with Geography program in D-113.	Minimal. Appropriate storage spaces already exist in C and/or D buildings at CoA (ground floor spaces)
Facilities: Other	Use of CoA 15-passenger vans for field trips	Gas for vehicles, possibly to be paid from instructional supplies funds.

Resource Category	Description/Justification	Total Estimated Cost
Library: Library materials		
Library: Library collections		

Resource Category	Description/Justification	Total Estimated Cost
OTHER		