Instructional Program Review – Annual Update
2022

Date:	March 25, 2022
Program and Department:	Geology, Life and Physical Sciences
CTE Program?	☐ Yes ☒ No
Additional programs included in this review:	Physical Science
Date of last comprehensive review:	November 3, 2020
Submitted By:	Feride Schroeder
Attachments (* as needed):	☒ 6-year assessment plan – All programs, when applicable ☐ 2-year scheduling plan ☐ Justification for Resource Requests (if needed)

I. Alignment of the Program with the AHC Mission

AHC Mission: Allan Hancock College fosters an educational culture that values equity and diversity and engages students in an inclusive learning environment. We offer pathways that encourage our student population to achieve personal, academic, and career goals through coursework leading to associate degrees, certificates, transfer, and skills building.

a. Have there been any changes that would require a change to your Program Mission?

No. The program mission was updated in 2020 and is current.

b. Explain how your program mission aligns with the college mission.

The college mission and values can be found here: https://www.hancockcollege.edu/about/mission.php

The geology program mission aligns with the college mission because it offers rigorous and current courses that meet the educational needs of students majoring in geology and physical sciences so they can be successful at AHC and beyond. The program also helps to develop life-long skills such as scientific literacy, critical thinking, communication skills and a sense of service to community.

II. Student Success, Program Accessibility and Program Capacity

*NO data analysis required this year.

a. Describe how the program works to promote student success (completions job placement, transfer). Include teaching innovations and use of academic and student support.

The geology program promotes student success by building important academic skills through active and field-based learning activities. The program will offer an associate degree for transfer starting in Fall 2022 to support students that plan to pursue degrees in Geology. Innovative teaching methods include active learning assignments during class, field-based activities that use current technology in mapping and spatial analysis, and student deliverables that include collaborative and project-based learning activities.

b. List any notable accomplishments of the program (student awards, honors, or scholarships can be listed here also)

III. Quality and Innovation in the Program and Curriculum Review

a. Are you on track in your assessment plan for course and program SLOs? If not, please explain why.

Yes.

b. Have you shared your assessments or improvement plans with your department, program or advisory committee? If so, what actions resulted? If not, how do you plan to do so in the future?

No, they are in progress (Spring 2022) and will entered into SPOL and share with the department by the end of the semester.

c. Did any of section, course or program improvement plans indicate that your program would benefit from specific resources in order to support student learning and/or faculty development? If so, please explain.

Yes, our program review outlined several resources that would support the launch of the new associate degree for transfer and new program goals. Resources are needed to support the new Historical Geology course that is a required course as part of the new degree. In addition, resources are needed for the new oceanography lab course that will become active in 2023. There has been an initial allocation of funds, but the program will require an increase in funding moving forward to support these courses. In addition, resources will be needed to support the reestablishment of a field program that includes short 5-day trips and longer summer field experiences. The primary need is for funding for transportation and field mapping technology for field excursions.

d. In reviewing your outcomes and assessments have you identified any and all that indicate a modification should be made to the course outline, the student learning outcomes or the program outcomes? Please state what modifications you will be making.

Modifications to course outlines are being finalized at this time for course review.

e. Have all course outlines been reviewed within the last 5 years? If not, please explain the plan to bring course outlines up to date and include timelines for the review and submission to AP&P.

Yes.

f. For **CTE courses/programs only**, as per §55003, have prerequisites, corequisites and advisories (PCAs) for courses and/or programs been reviewed within the last 2 years?

IV. Focus and Engagement of the Program

a. Summarize major trends and opportunities as well as challenges that have emerged in the program

As a result of the hiring of a full-time geology faculty, many opportunities have emerged. The full-time faculty member is working with local industry and government to improve curriculum, provide field trip opportunities and start a discussion about internship opportunities. The full-time faculty member is also collaborating with the local earth and environment science teacher at Righetti High School to facilitate pathways to the Geology program at Allan Hancock College.

Two main challenges overshadow this progress. Low enrollments from the pandemic “years” continue. In addition, due to the demographic make up of much of our student community, cost remains a barrier to our field program.

b. List any (internal or external) conditions that have influenced the program in the past year.

The ongoing restrictions associated with the COVID pandemic have reduced enrollments in the program and have limited field experiences. There are also pandemic related issues in student retention and performance.

Data for Program with Vocational TOP Codes (CTE):
https://misweb.cccco.edu/perkinsv/Core_Indicator_Reports/Default.aspx
Please review the data and comment on any trends.

c. Current industry employment and wage data (please cite sources) Suggested sources: ONet Online and EDD LMI site

d. Industry employment and wage trends

e. TOP code employment CORE indicator report

f. Advisory committee recommendations

V. Continuous Improvement of the Program

a. Status of Final Plan of Action – Post Validation
Summarize the progress made on the recommendations from your last comprehensive program review plan of action

PLAN OF ACTION	ACTION TAKEN/RESULT AND STATUS
Add a lab component to one of the existing non-lab Geology courses.	Curriculum will be submitted in CurriQunet in April for GEOL 114 lab (GEOL 114A). The objective is to run the course in Fall 2023.
Develop a plan to offer student internships.	Full-time faculty member has connected with local employers and beginning discussions for local internships.
Investigate developing a new course or courses in Physical Science to accommodate increased demand for PHSC courses.	No progress has been made. This will be considered in the future.
Revise the course outline of one of the existing non-lab Geology courses to adapt it for distance learning.	In progress for GEOL 100, 114 and 141 plus PHSC 111 and 112, will be submitted in CurriQunet by the end of the semester.
Increase involvement in the MESA program.	The full-time faculty provides information to the class on MESA programs and resources. The faculty member is also working with MESA to determine the best strategy moving forward to increase involvement.
Develop a Historical Geology course.	Completed. The course will run in Spring 2023.
Create an AS-T degree in Geology.	Completed. The program is available starting Fall 2022.
Develop and offer a Life and Physical Sciences speaker series.	No progress has been made.
Purchase a 32-passenger bus or two vans to transport students on geology field trips.	The request has been submitted to the college. No progress has been made.
Purchase of new lab samples for Historical Geology course.	This request has been submitted and tentatively approved.
Purchase twelve up-to-date GPS receivers and a site license for Arc GIS.	The site license is being purchased by the college as it is needed by the Geography program also. The GPS receivers have been included in our 2021 equipment request.
Hire a new full-time faculty member.	Completed.

b. List any new resources that the program received in the past year and the results

Source	Specific Resource	Est. Amount $	Impact on program or course outcomes
District funds	Chemistry Go Direct Standard Package	$7090	This enables the program to launch the oceanography lab course. This will help students meet and exceed standards for outcomes.
District funds	Dissolved Oxygen Sensor	$2980	This enables the program to launch the oceanography lab course. This will help students meet and exceed standards for outcomes.
District funds	Nitrate Sensor	$2490	This enables the program to launch the oceanography lab course. This will help students meet and exceed standards for outcomes.
District funds	Laptops	$25,470	The laptops facilitate the modernization of Geology curriculum and the ability to offer geospatial activities in Geology courses. The program will not longer have to share laptops with other disciplines, which often results in lack of availability.

c. List any new or modified recommendations below, including rationale for these in the table.

Program Improvement Plan (Program ,Priority Number, year)	Anticipated Outcome (Goal)	Program Goal Status (Indicate if this goal is ongoing from a previous Annual Or Comprehensive Program Review or new this year).	Alignment to Strategic Directions and planning goals (see " Alignment to Strategic Directions" Attached	Activities	Justification (Evidence of need)	Resource Request (From table Below)	Anticipated Completion Date or On-going

d. Summary of request for resources. Please list the type of request (facility, technology, staffing, equipment, other) and rank their priority.

These are ranked in descending order, with the highest priority first and lowest priority last.

Resource Requests (Program, RRX year)	Item	Program Goal	Type	One-time cost	On-going cost (per fiscal year)	Anticipated Completion Date or On-going
Geology 2022-2023	fossils	2	equipment	$1379.70	0	2023
Geology 2022-2023	microfossil slides	2	equipment	$497.50	0	2023
Physical Science 2021-2022	Ford Transit Passenger Van XLT (3)	10	other	$131, 214.00	Registration, insurance	on-going
Geology 2021-2022	GPS receivers	11	technology	$17,970	0	on-going
Geology 2021-2022	iPads	4 and 11	technology	$6885.00	0	on-going
Physical Science 2021-2022	Canopy - 2	10	Equipment	$380.00	0	on-going
Physical Science 2021-2022	Camp lights	10	Equipment	$232.00	0	on-going
Physical Science 2021-2022	Walkie talkie radios	10	equipment	$180.00	0	on-going