

**BASIC PROGRAM INFORMATION**

*Program Review is a self-study of your discipline. It is about documenting the plans you have for improving student success in your program and sharing that information with the college community. Through the review of and reflection on key program elements, program review and planning identifies program strengths as well as strategies necessary to improve the academic discipline, program, or service to support student success. With that in mind, please answer the following questions:*

**Discipline Name:** Geology

**Department Name:** Earth Space and Aviation Science

**Division Name:** Mathematics and the Natural and Health Sciences

Please list all participants in this Program Review :

Name	Position
Sean Figg	Geology Program Director, Assistant Professor

**Number of Full Time Faculty:** 1

**Number of Part Time Faculty:** 2

**Please list the Classified positions (and their FTE) that support this discipline:**

ADA 20%, Instructional Assistant IV 10%

**What additional hourly staff support this discipline and/or department:**

**Discipline mission statement:** [Link to "How to Build a Mission Statement"](#)

The Geology Program at Palomar College consists of the study of the dynamic processes that shape Earth. Geology incorporates a multidisciplinary approach to describe and solve a variety of problems, including those related to human interaction with natural systems, geologic hazards, and resources. The mission of this program is to develop the fundamental geologic knowledge and install skills for life-long learning in a constantly changing regional, global, and scientific community. The program strives to provide high quality, field-orientated educational opportunities in science for a diverse student population to fulfill general education requirements or fulfill transfer requirements for California universities, ultimately leading to careers in geoscience related fields.

**List any new degrees and certificates offered within this discipline since your last comprehensive review:**

Discipline Level Data: <https://sharepoint2.palomar.edu/sites/IRPA/SitePages/PRP%20Summary%20Source.aspx>

## SECTION 1: PROGRAM REFLECTION

**1A. Program Analysis:** Reflect upon and provide an analysis of your summary data.

Data from the past years shows student numbers enrolled in geology courses have increased from 147 students in 2007-2008 to 259 students in 2012-2013. Census load has ranged from 76% (2008) to 99% (2012). This number is down slightly from the previous year but still shows a significant increase when compared to the 2012 data. Then the program hit a slight decline, dropping to 241 in Spring 2014 and 231 in Spring of 2015. However, these numbers reflect the decrease in the Sum of Enrollment Cap. In Fall 2015 the Geology program Enrollment at Census was 100%, in Spring of 2016, when the cap was increased to 260 the Enrollment at Census was 88%. Over the past three years, the Geology program WSCH/FTEF has been on a steady increase from 498.0 in Fall of 2013 to 576.67 in Fall of 2015 with a student retention rate remaining constant around 94%. The number of AA degrees given out over the last year has been low and largely out paced by the number of AS-T degrees or simply transfer students. The Geology program is in a re-building year, going from over 20 listed majors to around 12, although plenty express interest in the degree. All of the data supports a steadfast geology program with considerable potential for major and non-major growth.

**1B. Standards:** ACCJC requires that colleges establish institutional and program level standards in the area of course success rates. These standards represent the lowest success rate (% A, B, C, or Credit) deemed acceptable by the College. In other words, if you were to notice a drop below the rate, you would seek further information to examine why the drop occurred and strategies to address the rate.

**Discipline Level Course Success Rate:**

- A. The College's institutional standard for course success rate is **70%**.
- B. Review your discipline's course success rates over the past five years.
- C. Identify the minimum acceptable course success rate for your discipline. When setting this rate, consider the level of curriculum (e.g., basic skills, AA, Transfer) and other factors that influence success rates within your area. If you set your discipline standard below the College's standard, please explain why.

Standard for Discipline Course Success Rate: 70 \_\_\_\_\_

Why?

In the past few geology program success rate has traditionally been 75% or higher and aims to keep it that level but trends fluctuate. Previous years such as 2011 and 2012 were exactly at the 70% mark.

**1C. Program Update:** Describe your proudest moments or achievements related to student success and outcome.

The first student to graduate and transfer to a university since my start at Palomar just took the National Association of Board of Professional Geologists Exam. She is set to graduate this spring, and I could not be more excited for her and the hard work she put in.

**1D. Program Improvement:** What areas or activities are you working on this year to improve your program? Please respond to new data as well as feedback from last year's program review.

I am working on expanding the Geology 150: Dinosaurs and Earth History Class (lecture and lab). This class was previously taught by adjuncts so it has no congruity and very few supplies. I have been busy creating new lab kits and am in desperate need of supplies. I have also been establishing a relationship with the local paleontology museum (the Roynon Museum), bringing labs to the most extensive fossils collection in North County. In addition, Professor Mike Deal in Life Science and I have been working on a joint field course to Catalina Island. As the data indicated, it is also a rebuilding year. Robert Falero, the geology adjunct, and I have been working hard to recruit new geology majors through teaching dedication, enthusiasm, and field trips.

**1E. Unanticipated Factors:** Have there been any unanticipated factors that have affected the progress of your previous plan?

The supply deficit for running three geology labs simultaneously. Add in using the same test kits for lecture demonstrations, the supplies become quickly exhausted. There are not enough kits, minerals, rocks, and fossils, to create enough long term use kits. Identification guides have also become an unexpected printing cost. While they will last for multiple semesters, the printing budget is much high than anticipated.

**1F. SLOACs:** Describe your course and program SLO activities this past year. How have you used the results of your assessments to improve your courses and programs? [Refer to the SLO/PRP report – https://outcomes.palomar.edu:8443/tracdat/](https://outcomes.palomar.edu:8443/tracdat/)

The SLO data has been broken into fall and spring testing. It has been helpful to narrow down which areas students are strong, such as rock and mineral identification and which areas are weaker such as fault/fold identification. Although, in both SLO's

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students were above the requirement for passing the SLO, ranging from 74% to 80% success rates. The data is used more in the sense of how can I better evaluate this SLO? What assessment method would work more effectively? These assessment methods are being developed.

**SECTION 2: PROGRAM GOALS**

**2A. Progress on Previous Year's Goals:** Please list discipline goals from the previous year's reviews and provide an update by checking the appropriate status box .

Goal	Completed	Ongoing	No Longer a Goal
Implementation of the AS-T degree.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Integrate new technologies such as GIS, virtual field trips, etc.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Address the repeatability issues of the GEOL 195 Field Courses.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**2B. New Discipline Goals:** Please list all discipline goals for this three-year planning cycle (including those continued from previous planning cycle):

GOAL #1	
Program or discipline goal	Address the issue of GEOL 150 lab materials and general supplies
Strategies for implementation	Review the department budget to see where money could be allocated for an increase in supplies. Seek out PRP and grant opportunities to increase the geology supply budget.
Timeline for Implementation	Spring 2019 (the next time GEOL 150 will be taught)
Outcome(s) expected (qualitative/quantitative)	Creation of sustainable lab kits for GEOL 150 and an increase in general rock and mineral supplies.
GOAL #2	
Program or discipline goal	Additional development and creation of GEOL 295 field courses
Strategies for implementation	Develop curriculum for GEOL 295: Regional Field Courses
Timeline for Implementation	2020
Outcome(s) expected (qualitative/quantitative)	Students will be able to experience and investigate geologic features and processes in a greater number of regional settings such as: Catalina Island, Northern Sierras, and Salton Trough.
GOAL #3	
Program or discipline goal	Create a series of Geology 197: Special Topic courses
Strategies for implementation	Develop curriculum for multiple short 1-unit courses
Timeline for Implementation	2020
Outcome(s) expected (qualitative/quantitative)	Generate interest for geology majors and non-majors focusing on relevant issues in southern California such as Salton Sea, Geothermal Energy, San Andreas Fault System, and Earthquake Prediction Models.

**Department Chair/  
Designee Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Division Dean Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Vice President Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_