

Comprehensive Program Review Report



Program Review - Earth Science

Program Summary

2021-2022

Prepared by: Eric Hetherington

What are the strengths of your area?: The Earth Sciences heading includes ESCI 1 Introduction to Earth Science and a course in Geographic Information Systems (ESCI155).

ESCI 1 is a required course for the Liberal Studies Transfer program to Fresno State University. Enrollments in ESCI 1 have traditionally been strong and pass rates (88.3% in 2020-2021) are relatively high compared to those of other science courses. This course is taught exclusively by adjunct faculty who work closely with the geology chairperson to ensure that the resources of the geology program are available to earth science students. ESCI 155 Introduction to Geographic Information Systems is a new (first taught in Spring 2020) transferable course with applications in many disciplines; it is hoped that this course will develop enrollment commensurate with its usefulness.

What improvements are needed?: Efforts to improve enrollment in ESCI 155 are needed. Perhaps most promising development is the anticipated inclusion of the class in an anticipated surveying certificate in the Engineering department. Also, though it was not taught in 2020-2021 and not scheduled to be taught in 2021-2022, GEOL 155 may yet succeed under the auspices of a new geography faculty member with expertise in the area.

Describe any external opportunities or challenges.: Student success rates dropped below 90% (to 88.3% in 2020-2021) in association with COVID-induced emergency on-line delivery. ESCI 001 is being taught face-to-face this Fall (2021).

Overall SLO Achievement: The latest SLO assessment for ESCI 001 measured a 100% success rate.

Changes Based on SLO Achievement: None

Overall PLO Achievement: ESCI is not a program.

Changes Based on PLO Achievement:

Outcome cycle evaluation: ESCI 001 was scheduled for assessment for 2020-21; it will be assessed in Fall 2021.

Action: 2020-2021 Implement hybrid outreach activities to improve lab success rates.

Faculty will participate in online workshops, students will receive take-home lab kits. Online and hybrid courses will be assessed, success rates will be analyzed in comparison with in-person courses.

Leave Blank:

Implementation Timeline: 2020 - 2021

Leave Blank:

Leave Blank:

Identify related course/program outcomes: Students will be able to identify specific rocks and fossils.

Person(s) Responsible (Name and Position): Division Dean and Division Chair

Rationale (With supporting data): Course success rates have been stagnant for the last two years, at 55 percent, accomplishing.....

Priority: High

Safety Issue: No

External Mandate: Yes

Safety/Mandate Explanation:

Link Actions to District Objectives

Program Review - Earth Science

District Objectives: 2018-2021

District Objective 2.1 - Increase the percentage of students who earn an associate degree or certificate (CTE and Non-CTE) by 5 percentage points over three years

District Objective 2.2 - Increase the number of students who transfer to a four-year institution by 10 percent over three years

District Objective 2.4 - By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points