2019-2020 Program Review

Program Review - GeoSciences

2019 - 2020
1. Department Goals - Current Progress: 2018/19 Goals:
Goal #1
"Offer GEOG 300 and 310 as fully online sections to support a fully online degree at FLC and improve program completion rates."
This goal has been met. GEOG 300 curriculum was edited to be compliant with the S19 OEI rubric and is successfully being offered online. GEOG 310 curriculum will be edited to be OEI compliant once the OEI rubric is updated and finalized by the LRCCD Online Course Design team.
Goal #2
"Improve course enrollments through outreach, innovation, and scheduling."
This goal has been met. Course scheduling was examined to identify; inefficiencies within the GEO schedule, low enrolled or under performing courses, and courses that do not support GEO degrees, certificates, or transfer goals. After review it was determined that afternoon and Friday sections were not an efficient use of FTE, Monday through Thursday 9-12 courses should be maximized, labs should be offered on corresponding lecture days, lectures should be maximized on the same day, and online offerings will improve program productivity and allow for low-enrolled CTE courses to be offered. All of these actions have greatly improved program productivity; 445 in 2017/18 to 491 in 2018/19.

2. Department Goals - Future: Goal #1
Convert and offer more GEOG AA-T courses in an online format.

Goal #2
Simplify the GIS certificate by reducing the total units required from 16 to 7.

Goal #3
Increase student success and retention rate of the GEO program.

3. Special or Long Term Projects: Continue to seek methods to improve student engagement and success in online courses.
Continue to lobby for more FTE to offer courses that support the GEO degrees and certificates.
Continue to lobby for GEO cohort creating time and space such as the "GEO study hall" offered Monday - Thursday in Cypress Hall.

4. Department/Discipline Plans - Curriculum and Course Sequencing: GIS
Students cannot get the necessary courses to complete the FLC GIS certificate at FLC
32. Offer GEOG 331 and GEOG 334 as 8w2 courses in the Fall.
GEOG AA-T
Increased enrollments in online lecture and lab courses indicates that there is room for growth in this discipline. Offer more GEO core and elective courses in an online format. Courses will include GEOG 300, 301, 310, and 322.
GEOL AS-T
Continue to rotate GEOL 310/311 into the 2-year schedule.

5. Program Development & Revision: Plans are in place to revise the GIS certificate to increase program completion rates. There are no plans to add new degrees or certificates.
6. Percent of SLOs assessed: There are approximately 15 Geoscience courses and approximately 5 SLO's per course resulting in approximately 75 SLO’s for the department. Approximately 40, or 53%, have been assessed or are currently being assessed using the 2010 Geoscience Department SLO Assessment Plan. Not all courses are offered on a regular basis and are therefore not regularly assessed. The un-assessed courses will be assessed the next time they are offered.
7. Course SLOs - Synopsis: Student SLO achievement per course is consistent over time and at an acceptable level for all of the assessed GEO courses. Faculty report that students successful achieve the student learning outcome at rates ranging between 81% and 91%. Online student success is slightly lower than on-ground though not statistically significant.

Resources needed to improve/maintain current student performance:
1. GEO Study Hall space in Cypress 212, Monday - Thursday 12-1 p.m. Faculty and student feedback indicates this is a valuable
2. More embedded tutors. Faculty, student and tutor feedback indicate this is a valuable effort for all.

3. Regularly offer a full spectrum of classes necessary for students to complete the GEOL and GIS programs.

4. Release time for online faculty to obtain training in online student engagement.

5. Sufficient funding to replace, maintain, and update Geoscience instructional materials and faculty development materials.

8. Course SLOs - Strategies for Improvement/Maintenance: See resources requested in section 7.
   The strategies for improving student access and success are:
   1. FLC OIR research data indicates that student cohorts outperform other demographics. GEO would like to create opportunities for students to align themselves as a GEO cohort. Having a dedicated GEO study hall has advanced this condition.
   2. The embedded tutor program has proven beneficial for the confidence and transfer preparedness of the GEO tutors and the GEO students respond well to peer based instruction and guidance.
   3. Students have a difficult time completing all of the courses for GEO degrees and certificates at FLC in a timely manner. Providing more FTE to offer more classes will create more opportunities for students to align and identify with other GEO students.

   Geoscience student success has improved by 4.6%
   Geoscience student retention has improved by 2.7%.
   Geoscience online student success has improved by 16.4%
   Geography student success has improved by 7.8%
   Geology student success has decreased by 3.7%
   Geography student retention has improved by 7.5%
   Geology student retention has decreased by 2.6%
   GIS student success is highly variable due to small sample size.

10. Program SLOs - Strategies for Improvement/Maintenance: See resources requested in section 7.

Request more FTE:
   .2 for GIS
   .2 for GEOG/GEOL online courses.

11. Improving Course and Program Success Rates - Data Analysis: Data Analysis:
   Highlights: FLC Geoscience Program SLO success and retention rates have improved to levels that are consistent with the overall Folsom Lake College rates. Geography student success is better by almost 5%, Geology is worse by about 4%, Geoscience online is better by almost 15%. Student engagement has improved most likely due to the use of embedded tutors, administration support of a Geoscience study hall in Cypress Hall and ongoing faculty commitment to program improvement.

Program SLO success rates are hindered by a lack of available courses for successful completion of GEO programs within a 2-year cycle. Several students report having to travel to other campuses to get the necessary classes in order to complete their academic goals as it relates to geoscience. Improvements have been made by implementing more strategic scheduling plans such as more online courses, creating recurring patterns for GEOG courses (see GEOG program success rate improvement), better temporal alignment of lectures and labs, and removing courses from undesirable time blocks. More resources have been applied to the Geography program and as a result there are greater signs of Geography program improvement.

Lowlights: Student demand is still not being met. Results from the Geoscience internal program review indicate that students become frustrated with the lack of courses necessary to complete GEO program. This frustration decreases engagement and
decreases student success.

Analysis based on Program SLO’s are assessed using the Folsom Lake College Efficiency Measures Report (2014 - 2019), the FLC OIR report on degrees and certificates awarded, and the ongoing FLC Geoscience program internal program review. The Efficiency Measures Report and the Geoscience program internal program review are considered more accurate barometers of student success as most students are not seeking to complete a Geoscience degree or certificate rather they are completing their physical science transfer requirement.

12. Improving Course and Program Success Rates - Strategies and Resources Needed: See strategies outlined in Section 8.

13. Suggestions for Improving the ADP/PR process: NA

14. Is your ADP complete and ready for review by the Dean and Vice President?: N/A - Completing Program Review

Program Review Questions (skip if not completing program review)

15. Mission Statement: The mission of the FLC Geoscience program is to provide high-quality, meaningful, contemporary geoscience education opportunities such that students of FLC can not only succeed in their academic and professional pursuits but also become successful contributors to the cultural, social, and professional fabric of their community.

16. Pre-Requisite and Co-Requisite Validation: Yes.

17. Maintaining Program Currency: Geoscience regularly reaches out to stakeholders in the FLC service area to seek input on how to better meet the needs of our community members. Based on this information the FLC Geoscience program conducts an annual internal review to seek places to modernize and improve our programs. In addition FLC Geoscience faculty coordinate with the FLC Maker Space, other FLC disciplines, and the Science shop to create unique learning experiences for FLC students.

The GIS Advisory Board has been instrumental in providing feedback to improve the type of GIS certificate program we should be offering at FLC.