

Program Performance Review: Culmination Meeting Memo

Department of Geological Sciences

The 2013-2014 Program Performance Review (PPR) process for Department of Geological Sciences concluded with a culmination meeting on April 17, 2015.

During the meeting, the program was commended for the significant progress made since the last PPR, which includes:

1. The department has clearly articulated vision, and is aligned with the University Strategic Plan.
2. The department has strong reputation for producing students who are well prepared for both industry and graduate studies.
3. The department is a model for engaging students in HIPs. The curriculum grounds students in HIPs (e.g. lab work, field work), which provided students with the ability to solve real world problems. This explains the high rate of graduates (88%) who are engaged in work or graduate studies in a related field.
4. The recent creation of the BA Earth Science program represents a strong commitment to supporting science teacher preparation. The department reported that this new major helps attract new crowd of students, and making the curriculum more flexible and adaptable.
5. Department headcount has increased 452% since 2005. The number of majors has doubled in the last 4 years. The department is at a point of determining the optimal size and the trend for future growth.
6. The department has a strong foundation assessing SLOs in undergraduate degree programs.
7. The department has successfully recruited several new faculty in the last few years.
8. The department is commended for its leading role in the Cooper Center, enhancing the university's visibility to the public.

The major recommendations and concerns raised through the PPR process were discussed. Suggestions on how to address them were provided:

1. In future tenure-track hiring decisions, consider geophysics and clastic sedimentology/basin analysis as priorities in order to build research strengths that connect with other departments and centers on campus:
 - The department has different opinions on future hiring plans than the one recommended above by the external reviewers – the department will focus on a structural geologist and a basin analysis expert. Geophysics will not be the priority. This decision is made in order to support core field-based courses.
 - The college cautions the department for making this hiring plan, and recommends the department to think beyond curriculum needs in the immediate future.
 - In addition to diversify research areas, the department has also made progress on minimizing the gender gap among faculty. The department has successfully hired 2

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women in the last 3 new hires, and will continue to address gender diversity in future hires.

2. Provide enhanced mentoring programs for junior faculty and lectures:
 - The department plans to revisit the practice of assigning mentors to tenure-tracked faculty. The chair will talk with new faculty after the completion of the first year to learn about their experiences, and explore the necessity of having a formal mentoring system.
 - The department has 10 part-time faculty, who do not have a mentoring system or policy. While the GE coordinator and/or the chair meets with the part-time faculty, a formal mentoring system is needed to support them.
 - The university recognizes the professional development need for part-time faculty. The FDC will have an adjunct faculty coordinator position starting in Fall 2015, who will take the lead to address this issue at the university level.

3. In order to support current enrollment and maintain HIPs (e.g. undergraduate thesis), consider what the “best size” should be for both the BS and BA programs:
 - Undergraduate thesis is a hallmark of the BS Geology program. While it is a tremendous amount of work for 11 faculty members to mentor over 100 students, this undergraduate research experience is what helps students become competitive on the job market. The college recognizes this research/thesis experience as a HIP, and is working with the department to explore ways to compensate faculty for research/thesis supervision in terms of WTUs.
 - The BA Earth Science program offers more flexibility in terms of student “pathways” (e.g. teaching, environmental science, business). It does not require a thesis, which is effective in helping students complete the program faster (i.e. increased graduation rate), and helps reduce the workload associated with thesis supervision.
 - The department needs to determine its optimal size, and balance student growth demand with the sustainability of providing high quality HIPs to students.

4. Develop additional metrics for assessing the effectiveness of the undergraduate degree programs:
 - The department is making progress on assessment. SLOs were established at the faculty retreat, and rubrics were used to assess the SLOs using the undergraduate thesis. Reflection of this practice led to the refinement of SLOs, and the department is taking an incremental approach to build up the assessment practice.
 - The department assessment coordinator provides good leadership, and the college assessment liaison is helpful as well. The Office of Assessment and Educational Effectiveness provided strong guidance and support. The new hire specialized in Geoscience education is expected to help lead assessment efforts as well.

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5. Enhance links to potential employers through developing an industry-based Advisory Committee, or creating a “Professor of Practice” position for industry leaders to teach courses in the department:
 - The department sees itself to be well connected with local businesses, which helps students secure employment. The department has brought in business leaders to give talks to the students, and will continue to do so.
 - The college thinks it may be redundant to have a departmental advisory committee, but will work with the department to add a geology industry representative to the Dean’s Advisory Board.

6. Improve graduate student funding to attract highly capable graduate students:
 - By offering financial support, the department has seen a tremendous increase in the quality of graduate students, as well as in the number of full-time and out-of-state students. However, the current financial support is not sufficient – a significant portion of the stipend goes back to tuition cost. The few waivers for non-resident fee are far from enough. While faculty try to include support for graduate students in grants, this model is not sustainable. Further financial support is needed to attract high quality graduate students, including stipend and tuition fee waiver.
 - The college recognizes that this is a college-wide program, as TAs and GAs are very important for STEM students. The college emphasizes that TAs actually help save money for the college, and improves the research productivity as well.
 - The university acknowledges this problem – CSUF is one of the few CSU campuses that do not provide funding to graduate students as a regular practice. The university will identify the commonality of this issue across campus, and discuss it with the Council of Deans.

7. Promote Instructional and Administrative Support staff:
 - The department lost a very good staff technician because he was not allowed to be an instructor. The department would like to see more flexibility that allows staff to teach.
 - The university recognizes this issue as a system-wide problem that needs to be addressed. In the mean time, the department is encouraged to explore creative ways to allow staff to teach.

8. Purchase two new vehicles to continue HIP field trips:
 - The department strongly desires a replacement of current vehicles, in order to support field trips.
 - The college will work with the department to accomplish this goal.

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9. Renovate DBH-203, set up new TA office space, and purchase new lab and field equipment:
- The university has placed DBH-203 on the list of classroom renovation, and will address this issue.
 - The university recommends the department to consider holding TA office hours outside the home building. One possibility is the new library graduate student success center. The department suggested the idea of establishing a college-wide graduate TA center.
 - The university recognizes the need for new equipment to accommodate the increased number of students. It is exploring ways to address this common problem campus wide (e.g. seek private funding).