Program Performance Review: Culmination Meeting Memo Geology BS & MS, Earth Science BA

The 2021-2022 Program Performance Review (PPR) process for the Geology, BS and MS, and Earth Science, BA programs in the College of Natural Sciences and Mathematics (NSM) concluded with a culmination meeting on December 6, 2022.

The following people attended the meeting: Carolyn Thomas (Provost), Edward Fink (AVP for Undergraduate Academic Programs, AVPUAP), Elaine Frey (AVP for Graduate Studies, AVPGS), Marie Johnson (Dean, NSM), Sean Walker (Associate Dean, NSM), Adam Woods (Department Chair), and Su Swarat (Senior AVP for Institutional Effectiveness and Planning, SAVPIEP).

The Provost congratulated the programs for successfully completing the PPR process and utilized it as a thoughtful reflection opportunity. The Provost commended the department's contribution to the university and the community. The following specific accomplishments were highlighted during the PPR process:

- The department is well recognized for its commitment to student success by requiring undergraduate students to complete a thesis that, though labor intensive for students and faculty, engage students in high impact practice. Students are involved in hands-on field work as "co-constructors" of research.
- Employers recognize the department for providing highly qualified workforce.
- The department is committed to Diversity, Equity, and Inclusion (DEI) initiatives, as demonstrated by their completion of Unlearning Racism in Geoscience (URGE) training.
- Students, faculty, and staff enjoy the collegial culture that fosters support for one another and their sense of satisfaction.
- The department maintains a strong connection to its alumni, which facilitates students' networking opportunity and successful employment upon their graduation.
- The department's strong and effective field-based curriculum contributes to students' ability to earn professional licensing credentials. There is an experience cohesion between introduction and advanced courses, as well as between the BS and BA programs.

Major recommendations and issues raised through the PPR process were discussed as follows:

1. Enrollment

- The AVPGS pointed out that the applications for the MS program have decreased, resulting in low enrollment. She inquired about the sustainability of the program, and encouraged the department to consider a 4+1 proposal to establish steady pipeline.
- The Chair stated that graduate fee waiver is a strong incentive to attract students, especially for applicants from areas outside of SoCal. The new \$1K incentive initiative for graduate applicants in spring 2023 is a great idea that should continue.
- The external reviewers recommended the establishment of a non-thesis MA option for students seeking advanced degree for professional development and advancement. The AVPGS concurred that it would be a good way to meet different students' needs without having to create another MA program. She cautioned against adding new programs when graduate enrollment is a challenge.

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- The Chair reported that some students take a long time to graduate because of the thesis option. The faculty are aware, and are open to the idea of having a project-based option for the students.

2. GE course coordination

- The external reviewers recommended that the department should improve coordination of GE courses in the following ways: a more consistent implementation of course-specific student learning outcomes, adoption of one lab manual, and consideration of the role of GE lecturers in building inclusive learning environments and encouraging students to major in geology.
- The Chair reported that the lab manual has been replaced by OER materials. This allows the TAs who teach the labs to have coordination (through meetings every other week) and at the same time, enjoy the freedom to choose which labs to teach themselves.

3. Assessment

- Both the AVPGS and the AVPUAP encouraged the department to continue refine assessment of student learning outcomes. The AVPUAP specifically inquired whether the SLOs are too similar for the BA and the BS programs.
- The Chair reported that the faculty leading assessment are working to distinguish the SLOs for BA and BS programs, and additionally, to establish incremental assessment that tracks student competency growth over time.
- The SAVPIEP suggested that the department should work with OIEP to review specific assessment practices and discuss strategies to improve.
- The external reviewers recommended that further refinement of assessment measures is needed to help identify and inform specific areas to promote student success across demographic populations and support DEI efforts.
- The Chair reported that the department has just completed an in-house climate survey, and will examine the data to improve DEI efforts.
- The SAVPIEP also encouraged the department to participate in the campus-wide climate survey in spring 2023, and use the findings as another source of data to support not only assessment but also department DEI initiatives.

4. Faculty hires:

- The external reviewers pointed out that faculty hire is necessary to replace the loss of full-time faculty members due to retirement and to maintain departmental quality with respect to academic offerings, student-faculty research, and leadership and service.
- The Chair reported that the department is in the process of hiring an economic geologist and will be hiring an engineering geologist, both to replace retirement loss. The department would like to hire a remote sensing faculty member if possible.

The Chair summarized the department as a small department that allows for personal attention to students. Students are engaged with faculty in research, which provides excellent preparation for employment. All Geology majors have 100% employment rate in the field. The Earth Science program offers a very adaptable degree that is suited for teaching, laboratory work, scientific writing, etc.

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The Dean highlighted the collegial role Geology played in the McCarthy Hall renovation process. She commended the department for always being thoughtful about the future. The Provost concluded the meeting by thanking the college and department leadership.