

Botany Program Review:

Department Response to the Report by the Program Review Team

29 April 2019

The program review team, consisting of Dr. Exequiel Ezcurra (University of California at Riverside; team chair), Dr. Eric Ribbens (Western Illinois University), and Dr. Marjukka Ollilainen (Weber State University), reviewed the program's self-study and made a site visit on 20 March 2019. The team's report identified the following the areas of concern: databasing of the herbarium, student evaluation of curriculum and teaching process, the greenhouse infrastructure, and the impact of the coming faculty turnover due to retirements on the implementation of a new curriculum. We are already taking steps to address the first two issues raised. The other two are outside of the department's direct control.

Herbarium

The department agrees that the herbarium must be databased with information about our plant collections made publically available through one of the Symbiota portals. This process had started at the time of the site visit. There is an undergraduate who is curating and databasing a collection of Utah mosses that was made by LeRoy Behling in the 1950s. To date, information on 326 of approximately 2000 moss specimens has been posted to the Consortium of North American Bryophyte Herbaria. Heather Root has 255 lichen specimens in the portal maintained by the Consortium of North American Lichen Herbaria. Stephen Clark has provided a prioritized collections list to guide us as we begin entering the vascular plants into the Intermountain Regional Herbarium Network after his retirement. Databasing of the herbarium has generated a lot of student interest, and we anticipate setting up a volunteer system to encourage and track student participation in the project. We have an adjunct instructor for Plant Taxonomy this summer, and he will incorporate the use of the various herbarium portals into the class. This will give us a nucleus of trained students to start with in the fall. Beyond increasing the usefulness and accessibility of the herbarium, a presence in the portals will raise the department's profile as we seek to hire Dr. Clark's replacement next year.

Student Evaluations of Teaching

There is a system for student evaluation of teaching. These evaluations are not asked for in the program self-study but are used in the annual review of faculty, rank and tenure reviews, and post-tenure reviews. By university policy, tenure-track faculty have all of the course sections that they teach evaluated every semester. Tenured faculty have a minimum of two courses evaluated each year. The department started using a new evaluation form this academic year in order to get more useful information about the curriculum and teaching effectiveness than the old form supplied. A copy of the new form is attached. Students also provide feedback about the curriculum when they graduate. We switched from a face-to-face exit interview to an online one three years ago. We will be going back to the face-to-face format next year when we re-design our capstone and senior assessment classes as part of the curriculum revision.

Greenhouse

An energy audit of the Tracy Hall Science Center was conducted between the time we completed our self-study and the review team site visit. The audit revealed that the greenhouse accounted for approximately 15% (not a third) of the energy used by the building. Several fixes were identified at that time, and the department supports incorporating them into the greenhouse facility. However, implementation of the fixes requires financial support from the university. Improving the energy efficiency of the greenhouse would be compatible with the university's goal to be carbon neutral by 2050.

Faculty Turnover

We are acutely aware of the upcoming retirement of Sue Harley and Barb Wachocki four years after the retirement of Steve Clark this year. The goals of the current curriculum revision are diverse and take the faculty turnover into account:

- bring the curriculum into alignment with the AAAS Vision and Change document which would give us a national standard for assessment of learning
- streamline the major for students and bring it in line with the requirements in Microbiology which requires 12 fewer credit hours
- provide flexibility in course requirements so that students can complete degrees in a timely manner as several of our courses, including currently required courses, are offered alternate years
- provide flexibility in course requirements to make it easier to balance teaching loads among the faculty
- keep students on time to graduate by providing flexibility to meet course requirements during the faculty turnover period when some courses might not be offered for several years, new courses will be developed, and some existing courses will be deleted
- have the new curriculum in place for 2020-2021 so that it is in place for three years while Drs. Harley and Wachocki are still around to assist with debugging any issues that arise

Drs. Root, Schramm, and Hilbig will have completed the tenure process by the time Drs. Harley and Wachocki retire, but Dr. Clark's replacement will not. In the same sentence about the transfer of responsibilities from the retiring faculty to the recently tenured junior faculty, the team report mentions "the need to hire replacements for those that are retiring." Past program reviews have specifically stipulated that the faculty number not drop below six in order to meet the demand for general education offerings, to provide courses that include high impact practices, to maintain faculty scholarship, and to contribute service to the university and the Ogden community. It is critical to have a full complement of faculty to maintain the vitality of the faculty as a whole and the quality of the department. In addition, the Botany Department continues its long-standing commitment to increasing student access at the Davis campus by offering general education and introductory lab courses there. The department also shares a part-time lab manager, a greenhouse, and a community garden at the Davis campus with the Nutrition Program. The greenhouse and garden were funded through joint grants between Botany and Nutrition. No other department in the College of Science has made such an investment in the Davis campus, and we will need to maintain at least the same number of faculty to continue to honor this commitment. We will do a search for Steve Clark's

replacement next year. While having an open faculty line for a year saves money for start up funds and other needs, it would be helpful to do a search for either Sue Harley's or Barb Wachocki's replacement during their last year so as to not leave the junior faculty doing two searches (rather than just one) the following year with their number reduced to four.