

Dean's Response to the Program Review of the Botany Program **May 29, 2013**

I greatly appreciate the thought and effort that went into the report from the Program Review Team, as well as the self-study and report response by the Botany Department.

During this review cycle, I requested that departments select external reviewers without any ties to the department in order to ensure the most objective review possible. The Botany Department is to be commended for selecting reviewers who met these criteria and also comprised an outstanding cross section of disciplinary professionals from stand-alone Botany programs as well as those integrated within Biology departments. During their visit, I provided the reviewers with a list of specific questions that I felt would help guide the evaluation, and assured each review team that their honest and objective observations, responses, opinions and suggestions were expected. They were asked to consider the questions in developing a SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats), which would comprise the core of their report. Consequently, the corresponding report reflects solely the views and opinions of the reviewers, and appears to be both thoughtful and comprehensive in its assessment of the Botany program at Weber State University.

In their report, the reviewers identified a number of strengths, including the faculty, the curriculum, undergraduate research, student satisfaction, and staff. They also noted that Botany has a unique identity and niche in Utah and the region. The department and I agree in this respect.

In developing their SWOT analysis, the reviewers made a number of suggestions that are included in the department response. I also address these, below:

- 1) The department mission aligns with the College and University Mission. However, a strategic plan should be developed which will aid in guiding new faculty hires and restructuring the curriculum.
I agree that a strategic plan should be developed, and recommend that this process should begin immediately to help define future hires (as noted above) and continue throughout AY 2013-14 to address other suggestions specifically noted by the reviewers in their report. The review team recommended that the "development of a strategic plan may benefit from an outside moderator who is current on trends in the plant sciences." While I agree with this observation, I instead recommend that the department should establish an industry advisory board composed of regional professionals and potential employers of their graduates, who can advise the department as it moves ahead with strategic planning. I recommend that the strategic plan be completed by not later than the end of the Spring, 2014 semester, at which time it should be submitted to the Dean for review.

- 2) Opportunities for a variety of curricular improvements and changes exist and should be investigated and implemented.
The reviewers identified a number of concerns and made a number of suggestions regarding the current botany curriculum. However, in reading the department response, it was not clear that the department understood or agreed with the reviewers recommendations. In their report, the reviewers noted a perception that the department appeared to be tied to the past, and was apprehensive about change. However, they also made a strong case that isolation is no longer a viable model for higher education and that the department could look for examples from other universities and programs. I agree with the reviewers, and ask the department to address as written in the review team report, the specific curricular recommendations from the standpoint of reducing the workload of current and future faculty while enhancing student learning. In particular, utilizing community-based models and standards to develop new courses (such as the recommended collaborative concept-based introductory life science course for majors) and guide curricular changes should be a department priority. The development of integrated genetics, ecology, and cell biology courses should also be investigated per the reviewers suggestion. Likewise, new pedagogical approaches that can simultaneously increase class sizes, reduce faculty workload, and improve student learning should be investigated and tested for incorporation into the

curriculum. Moreover, I was happy to see the department's willingness to place more focus on the Biology Composite Teaching major, and strongly recommend, per the reviewers suggestions, that the department investigates additional collaborations including "biotechnology in general and genomics and bioinformatics in particular." I stand by my prior statements to work with all departments, who wish to develop team-taught courses, to develop an equitable model for SCH allocations. Moreover, I will take under consideration the reviewers suggestion to provide incentives, most likely in the form of course buyouts or professional development opportunities, that will facilitate the development of new collaborative (or team-taught) courses, as well as the development, testing, or incorporation of new pedagogies.

- 3) Opportunities for improving student learning and assessment exist and should be investigated and implemented. *I agree with the reviewers suggestion that assessment could be improved via the integration of validated biological concept inventories and inventories of general science literary skills. Because these have the capability to provide a basis for evaluating programmatic success on a national basis, they can provide a baseline for future decision-making and should be adopted. The Office of Institutional Effectiveness, the reviewers, and the department acknowledge that assessment could be improved by rubrics and by better defining expected measurable outcomes. I agree that this should be a priority. Moreover, I agree that the department should attempt to send more students to professional meetings and encourage the organization of additional student organizations such as Tri-Beta. Within existing budgetary constraints, my office will continue to provide funds in support of the former as able.*
- 4) Academic Advising should be improved and distributed among the faculty. *The department response is logical in that one point of contact may be the best route for a small department. However, it adds an additional burden to the chair, and limits student interaction with other faculty. The department should develop an advising rubric. Using this, the advising work should be spread out among the faculty, beginning in AY 2013-14. Implementing a required annual or even semester-by-semester advising visit of all majors can help keep students "on-track" towards successful graduation in a more timely manner and should also be a priority. The college advisor can be engaged to assist in developing stronger advising skills among the department faculty.*
- 5) A minimum critical mass of six faculty is needed to address teaching and mentoring demands. Faculty professional development and workloads should be improved if possible. *I agree that the department needs a critical mass to continue its mission and have approved two searches for the 2013-14 AY, pending notification of the full retirement of Dr. Bozniak. Given that the reviewers expressed some concerns about the proposed ethnobotanist, the department should address specifically the reviewers suggestions to consider alternative specialties, and to provide a more robust evidence-based justification for the specialties proposed for both positions. The reviewers twice suggested- as a first priority - that "the department should streamline their curriculum," to "determine how best to deploy faculty among necessary core courses" and to "reduce the workload of current faculty and facilitate more cross-disciplinary training." The reviewers also noted, that "an objective curriculum review will highlight the areas with greatest need for new expertise." Collectively, these recommendations should become a department priority as they develop 1) their justification for new hires and 2) a strategic plan for the future. Pedagogical as well as curricular modifications should be explored as ways to improve workloads. Within budgetary constraints, I remain committed to funding professional development opportunities for faculty who wish to improve pedagogies, courses, curricula, or scholarship.*
- 6) Program support could be improved by 1) increasing the Administrative Specialist from a half-time position to a full time position, 2) working more closely with the Natural History Museum to develop botany-related displays, and 3) by including plans for the herbarium and greenhouse among those for the new building. *Increasing the Administrative Specialist (AS) to a full time position is unlikely to occur given various factors such as budget, economy, SCH, majors, graduates, and other needs within the college. One option that has been suggested is the development of an AS "pool" within the college, but departments commonly reject such suggestions, even though they may provide a solution to such problems. I remain willing to discuss such options with the college. I fully support greater involvement of the department with the Natural History Museum and hope that additional opportunities may evolve with the new building. Finally, I agree with the reviewers that both the existing greenhouse and herbarium should be included in planning*

for the new building, but also recognize that the importance of both facilities must be prioritized relative to other needs as planning proceeds.

7) Relationships with external constituencies could be improved.

I fully support the department effort to develop general advisory and employer advisory committees. Moreover, I support efforts to forge stronger relationships and partnerships with local schools, and with tribal communities. I also agree with the reviewers suggestion that stronger ties could be developed with the College of Education and I urge the department to consider this. As noted, while a college recruiter would be a great addition, long-term funding for such a position is not available. The response indicates that the chair will try to take on more recruitment duties, but this may be counterproductive given the heavy workload that the chair already has. Involving student organizations and distributing such efforts among the department faculty may ultimately prove to be more productive.

Finally, I recommend that the Botany Department undergo a full program review again during the 2016-2017 academic year. Beyond that, a return to the five-year cycle is anticipated.

David J. Matty
Dean, College of Science

Note: After completing my response to the report of the review team and the department response, I was notified by the department that they had received specific recommendations from the review team that formed the basis of their department response. Given that those recommendations were not shared with me in a timely manner, my responses are to the review team report and the department response.