

EXECUTIVE SUMMARY OF THE EXTERNAL REVIEWERS' REPORT

Academic Program Review

College of Arts and Sciences

Biology
(M.S., B.S., Minor, and Natural Science Minor)

EXTERNAL REVIEWERS

Soochin Cho, Ph.D.

Associate Professor

Biology Department

Creighton University

Julia Paxson, Ph.D., D.V.M.

Associate Professor and Chair

Biology Department

College of the Holy Cross

CAMPUS VISIT

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Prepared by: Ella Frazer, Director of Assessment & Curriculum Management

Draft reviewed and approved by: the Faculty in the Department of Biology, the Associate Dean of Sciences and Engineering, and the Acting Dean of the College of Arts & Sciences

The review team read the self-study written by faculty in Biology, reviewed the curriculum and course syllabi; interviewed faculty, students, and staff; and met with the Dean, Associate Dean, and other relevant members of the campus community. Prior to their visit, the reviewers were provided with USF's Mission, Values, and other university materials.

- 1. How did the external review committee rate the quality of the program – excellent, very good, good, adequate, or poor? How does the program compare with benchmark top-tier programs nationally? Please provide a brief rationale for the external review committee's rating.**

The external review committee gave the Department a rating of VERY GOOD. The review team was “impressed by the quality of the curriculum, faculty, students, and staff.” They also “believe the program

has the potential to become an outstanding or excellent program, given that improvements will be made in the areas mentioned in this report.” The reviewers found that “the faculty and staff of the Biology Department are striving to uphold [USF’s] mission in the challenging situation of increasing enrollment, shortage in teaching and advising staff, and limited resources and infrastructure for teaching and research. Notwithstanding, their passion and dedication for students’ learning and the exceptional collegiality among the faculty members epitomize what every department must have to succeed in the core business of higher education.”

2. What are the most important general issues/challenges that emerged from the external review process?

The report reiterates two recommendations from the 2014 Academic Program Review which “continue to remain serious concerns that are hampering the capacity of the excellent faculty in this department from fully meeting the needs of their students.” This includes hiring additional tenure-track faculty and renovating the Harney Science Center.

The reviewers note “the Biology department continues to be severely understaffed” and that “despite hiring additional faculty members since the last external review, class sizes are still very large (the self-study reports 50-60 students in many classes), faculty teaching overloads are common (the self-study reports between 16-20 units of overload each semester during the last academic year), and the capacity of tenure-track faculty to provide research opportunities for students is very limited... Faculty are overburdened with teaching and service commitments and unable to fully meet the needs of the students they teach, both in the biology department and across the University. At the same time, students experience high class sizes, less personal attention from their instructors, and fewer research opportunities. We strongly believe that increased faculty hiring within the department should focus on more tenure-track faculty.” The review team also found “it is relatively common for junior Biology majors not to be able to enroll in *any* upper level Biology courses. Some estimates within the department suggest that up to 25% of Biology majors do not take any biology courses for at least 1 semester in their junior year. For this reason, we recommend focusing on faculty hires that will expand offers of upper level biology courses, rather than focusing on hiring faculty specifically to teach additional service courses.”

In addition, “the continued lack of renovated space in the Harney Science Center still creates many barriers to meeting student needs within the department. The building itself is old and unwelcoming. Faculty offices are located in hallways that are windowless and uninviting, behind closed doors that discourage students from seeking out interactions with their instructors. The teaching facilities are limited, and the classroom lab spaces are sorely outdated. Despite the recent renovations of a limited shared faculty research space, the remainder of the faculty research facilities do not meet the needs of the current faculty with research programs at the university and do not encourage student participation.”

3. What specific recommendations for improving the program’s quality has the external review committee made to the Dean?

The external review team offered four overall recommendations:

- “First, at least four new full-time tenure-track faculty lines must be added over the next 3-4 years to bring the student-to-faculty ratio closer to what is seen at comparable programs in other institutions. As a comparison, the undergraduate biology programs in both Creighton and the Holy Cross have a faculty of ~20 full-time members (similar to that of USF Biology) for significantly fewer majors (~80 seniors, ~80 juniors, and ~40 sophomores; ~200 in total. Note these students declare their majors as sophomores.). An increase in faculty size will reduce the advising load per faculty and promote faculty development both in teaching and research, ultimately improving the overall student experience in the major.”
- “Second, the program curriculum should adopt a more flexible and robust structure that works for a broader range of students, giving opportunities to those who initially struggle but will end up excelling in biology.”
- “Third, more systematic support systems should be installed to address in a timely fashion the specific needs arising among students. These could include pre-health professional support, career development, mental health education/counseling, study skill development, and first-generation student issues. In particular, more effective pre-health advising for incoming freshmen is critical to improving the heavy concentration of freshmen in the Biology major.”
- “Fourth, the Biology department needs a more inclusive, welcoming infrastructure to support a thriving learning community. There is an urgent need for a complete renovation of the offices, classrooms, and lab spaces to support various teaching modalities and promote student-faculty interaction. It also needs an expansion for additional faculty research labs (for new hirings) as well as the general “living” areas for students, faculty, and staff.”

4. In the opinion of the external review committee, is the program following the University's strategic initiatives?

In line with USF's current strategic initiatives, the review team found that "inclusive excellence stands out as a challenging yet the most promising value proposition for USF Biology to become a leader in higher education. The department has been successful in creating challenging programs that prepare students for their future success in advanced training in biological sciences or health professions. On such a reputation, many talented, ambitious students are drawn to these programs where they are trained by the mission-focused, collegial, dedicated faculty to realize their personal and professional goals."

5. In what way is the program contributing to the goal of making the University of San Francisco a premier Jesuit, Catholic urban university with a global perspective that educates leaders who will fashion a more humane and just world?

"The mission of the Biology Department is well aligned with the University mission in that it seeks to advance excellence as the standard for teaching, scholarship, creative expression, and service. The Biology Department emphasizes the core Jesuit value of advancing the freedom and responsibility to pursue truth and to follow evidence to its conclusion. The upholding of these core values is vividly demonstrated in the curriculum, the culture, and the governance of the department. The department is also committed to prepare students to succeed personally and professionally with the potential for advanced training in the biological sciences so that they will promote the common good of the local community, the nation, and the world."

6. What is the timetable for the response to the external review committee's recommendations for program improvement? What can the Office of the Provost do to appropriately respond to the review?

The next step is for the Acting Dean, Associate Dean, and Director of Assessment to meet with the faculty of the Department of Biology and discuss the action plan based on the self-study and reviewers' report. Based on the reviewers' suggestions, the Office of the Provost could assist the program by: identifying opportunities to hire more full-time faculty and planning for larger renovations to Harney Science Center.

7. What general comments or issues, if any, are crucial to understanding the reviewers report?

No additional information is necessary to understand the report.