



# University of Wisconsin-Eau Claire

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**Date:** May 14, 2019

**To:** Provost and Vice Chancellor, Patricia Kleine

**From:** MEMBERS OF THE UNIVERSITY SENATE ACADEMIC POLICIES COMMITTEE

**Subject:** APC report regarding program review of the Department of Chemistry

The Academic Policies Committee (APC) appreciates the time and effort of Chair, Warren Gallagher of the Department of Chemistry, the members of the Internal Review Committee (Doug Faulkner, Patricia Turner, Scott Whitfield) and the external reviewer (Dr. Bert Holmes) for the review of the Department of Chemistry. The internal review committee and external reviewer reports provided the committee useful information to assist us in forming our recommendations. While the APC recommendations are generally summarized on the attached spreadsheet APC is providing additional details in the form of this letter.

## COMMENDATIONS:

The Department of Chemistry is to be commended for the following:

1. The department's continued contributions to generated SCH.
2. The department's continued commitment to providing high quality faculty/undergraduate student collaborative research.
3. The department's continued commitments to High Impact Practices (HIPs) inside and outside of the classroom.
4. The department's commitment to producing graduates that are sought after by private industry and recruited to top graduate programs.

## RECOMMENDATIONS:

**1. Access to upper division curricula for Majors and Asymmetric SCH by academic semester.** A continued concern from the last program review in 2013 and expanded upon by both the current IRC and external reviewer reports, is the expectations that the Department of Chemistry accommodate the large number of pre-nursing majors that require the CHEM 105 & 106 sequence during the fall semester. This obligatory action requires almost half of the department's faculty to teach this one course. This provides limited opportunity to offer needed courses to majors and/or other students during the fall semester. As a result, the department is left having to provide a bulk of their major curriculum every other spring semester which impacts students access to upper division courses and subsequently time-to-degree. Given the continued growth of incoming pre-nursing majors, this expectation of the Department of Chemistry is not sustainable. APC recommends the Provost work with the Department of Chemistry and the College of Nursing to discuss solutions that can be implemented by the 2020-2021 academic year. One solution discussed that would have an immediate positive impact is changing the math requirement for the course to at least MATH 109. According to the Chair of the department, this level of math competency is required to perform well in the CHEM 105 & 106 sequence. This potential solution can aid in the discussion of the role of the CHEM 105 & 106 requirement for pre-nursing majors, that the course serves as a 'weed out' rather than a foundational course for the major. This statement is a reiteration of the one made in the APC report from 2013. It could

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*Academic Policies Committee*

*University Senate*

also be determined by Academic Affairs that the Department of Chemistry role is to serve the University's needs as it relates to LE/GE versus insuring a robust number of majors/minors moving forward. If this direction was chosen, new measures of departmental accountability should be determined.

**2. Addition STEM Technician Positions.** Based on the recommendation of the external reviewer regarding the continued growth in the number of laboratory sections and greater utilization of lab equipment, warrants the need for more instrument repair technician. Assuming an eventual move into a new science building and more equipment, the need for repair technicians that can work across STEM fields seems logical and worth considering according to feedback from the Interim Dean of the College of A & S.

Summary Recommendation:

The Department of Chemistry is doing a great job in providing a distinctive, rigorous, and highly regarded undergraduate program. For the program to continue in these efforts, the APC recommends these immediate actions:

- Discuss and/or determine ways to ensure all High Impact Practices (HIPs) are accounted for in SAM
- Increase the number of viable substitutions for upper division courses to improve time-to-degree for majors
- Implementation of more robust safety training for staff and undergraduate students
- Develop tracking tools to account for students getting internships
- Increase and/or improve access to faculty/undergraduate collaborative research opportunities for all chemistry majors
- Develop and implement a robust EDI plan for the department

APC strongly supports the recommendation from all the other review levels to “continue in present form” considering the recommendations made above.

Cc.

Dr. Warren Gallagher, Chair, Department of Chemistry

Dr. Mary Hoffman, Director of Academic Planning and Assessment