

Program Performance Review: Culmination Meeting Memo
Biochemistry BS, Chemistry BA, Chemistry BS, Chemistry MA, Chemistry MS

The 2017-2018 Program Performance Review (PPR) process for Biochemistry BS, Chemistry BA, Chemistry BS, Chemistry MA, Chemistry MS programs concluded with a culmination meeting on March 22, 2019.

The following people attended the meeting: Pamella Oliver (Provost), Mark Filowitz (AVPAP), Marie Johnson (Dean, NSM), Peter de Lijser (Chair), and Su Swarat (Asst. VP for Institutional Effectiveness).

The Provost commended the significant accomplishments made by the Department of Chemistry and Biochemistry. Specific commendations received include:

- Faculty and staff are dedicated, hardworking, student-centered, and deeply committed to student success.
- Faculty is a strength of the department, which has an excellent record in recruiting and hiring. Retention record has improved as well. The department now has a good distribution of faculty across the ranks.
- Strong research culture in which dedicated faculty engage every undergraduate and graduate student in research experiences. This is critical to the chemistry field, and a High Impact Practice for the students.
- Faculty members are engaged in on-going curriculum reform that will both better manage the student research requirement and increase preparation of students for careers in industry, health professions and research.
- Excellent advising program for both undergraduate and graduate students.
- Robust, closed-loop program assessment that guides curriculum. The department has a strong faculty leader in assessment, and is also actively involving all faculty in assessment to provide continuity.
- Flexible and innovative in utilizing its limited space for teaching and research.
- Chair's strong, inclusive, and supportive leadership has led to improved morale among faculty and staff; Chair has a wonderful reputation campus-wide.
- Undergraduate and graduate students commented very positively on the education they are receiving, especially commending the department culture and the Chair.
- Faculty vigorously pursue external funding and have a high rate of award success.
- The department is moving towards student-centered active learning pedagogy, e.g. faculty implementing active learning techniques, faculty interest in flipped classroom, and recent renovation of existing space into active learning classrooms.
- Strong internship program and a high rate of post-graduate placement of its graduates in industry and research.

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

1. Explore offering CHEM 115 and/or the McGraw Hill ALEKS program for Chemistry on-line and/or face to face either in conjunction with CHEM 120a or in summer or intersession periods:

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- The AVPAP stated that CHEM115 was originally developed to help get students ready for subsequent chemistry courses, and its effect has yet to be seen.
 - The Chair is working with the Office of Assessment and Institutional Effectiveness to examine the data.
2. Offer graduate courses such that students can graduate in a timely fashion:
- The AVPAP asked whether the issue of course availability for graduate students is due to lack of faculty.
 - The Chair indicated that there was a lack of faculty for Organic Chemistry, but the issue has been resolved. The department works to create new courses that can be taught by all faculty in the area.
3. Consider the current RTP requirement of one externally funded grant for a positive tenure decision:
- The AVPAP recommended that the department does not remove the external grant requirement, but ask for more release time and administrative support to foster faculty scholarly research.
 - The Chair agreed, and stated that the goal is not to drop the grant requirement, but to make it more flexible. For example, the requirement might be multiple intermural grants instead of one big external grant, and the effort of actively seeking grants should also be considered.
4. Review workload and inequities among faculty:
- The Chair indicated that workload assignment was done through open discussions with faculty. One challenge is in terms of the amount of new course preparations faculty in different areas face. For example, the Analytical/Physical Chemistry faculty often teach general chemistry courses as well as specialty courses, which tends to give them more new course preparations; faculty with expertise in other areas often do not have this expectation.
 - The Chair also stated that it is critical to make teaching expectations clear during the interview when recruiting new faculty, so that their expectations are realistic. In addition, current hiring practices are such that the advertisements clearly state an expectation to teach general chemistry as well as courses in the area of specialty.
5. Review department safety practices, and upgrade infrastructure in Dan Black Hall (DBH) and McCarthy Hall (MH) including emergency power availability and access.
- The Chair reported that the existing safety practices are good, and the college has a safety committee that oversees this issue.
 - The Chair however noted that the emergency plugs in Dan Black Hall (DBH) present an area of concern. One seemingly easy solution is to move the unused outlets to other parts of the building and redistribute the sockets.
6. Upgrade teaching and research equipment:

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- The Chair pointed out that there are a lot of old equipment that needs to be updated, with the top two priorities being the centrifuges that cost \$50k each. While the department has saved up enough funds to purchase one, support from the university to replace the other centrifuge would be much appreciated.
 - The Provost indicated that there are conversations about consolidated course fees on campus. One possibility is to reallocate consolidated course fees from colleges that cannot use it to buy equipment.
7. Create additional office and research space:
- The Chair indicated that office space is quite tight – newly hired faculty have no designated office space. The department hopes that the renovation of MH can lead to the creation of offices in spaces that are currently poorly used. This renovation would require \$50k-\$100k.
 - The Dean and the Chair stated that the current MH renovation plan is focused on the second floor, with the intention of using it as a showcase to attract donors for other floors. The College has also submitted an NSF grant to remodel the basement into a research center. The department is interested in moving teaching labs from DBH to MH, and to convert teaching lab space in DBH into research lab space (DBH is better equipped for labs).
 - The Provost stated that adequate space (office and lab) is critical to realize the strategic plan goal of recruiting and retaining high quality faculty. She indicated that the President is working with the Deans on a white paper that details all lab and equipment needs in order to seek more funds from the CO.
8. Hire an additional technician to maintain the equipment:
- The Chair stated that Chemistry is an equipment heavy field, and the equipment needs constant maintenance. There are currently two technicians for instrumentation – one on the IT side, and the other on the equipment side. One technician who understands the instrumentation is not sufficient. The department is in dire need of another technician.
 - The Chair indicated that the department would like to pursue the possibility of hiring someone who is part-time technician and part-time instructor (who teaches classes related to equipment). The department is also willing to consider the restructuring of an existing staff position.
 - The AVPAP added that equipment maintenance is much needed for student success, as the wear and tear on equipment increases with enrollment; It is also critical for research productivity, as the quality of research data and thus grant opportunities rest on the quality of the equipment.
 - The Dean requested that funding to maintain equipment should be state-funded and long term; The department cannot rely on external grants only.
 - The Provost acknowledged the need, and stated that she would look into the possibility of getting a new staff position.

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The Provost concluded the meeting by commending and thanking the Chair and the Chemistry department faculty for their excellent contribution to the university and the students.