PRAC meeting 10/23/2014

Present: C. Dellinger-Pate, L. Vitale, S. Clerc (chair), M. Bay, T. Radice, R. Silady, M. Fede, R. Zipoli

Announcements:
The Provost will be attending the PRAC meeting on Nov. 6

Comments on the Chemistry self-study:
On 10/9/2014 the committee discussed the self-study submitted by Chemistry and met with Dr. Gerry Lesley and Dr. Jeffrey Webb.

In general, the committee found the report to be thorough, candid, and reflective. No revisions were requested.

The Chemistry Department receives external accreditation from the American Chemical Society and therefore was not required to complete the 17 standard review. The department decided to complete the full review because the ACS standards for learning outcomes are not as stringent as the university’s. The department also used the process of the self-study to improve the quality of their program by changing the curriculum to improve student learning.

Changes include:
- Increased emphasis on chemical safety and written communication
- Creation of lab manuals and department-produced videos that demonstrate experiments for students before they try them themselves
- Formalized recitation sessions for general chemistry courses, based on student feedback about the pace and data showing that students with informal review sessions did better
- Using standardized ACS tests to provide consistency across multiple sections of introductory courses
- Establishing, with the help of funding secured by faculty, a lab in Jennings that is designed for chemistry, with a laptop cluster, and student access when classes aren’t being held in it
- Beginning to restructure concentrations and eventually the minor.

The department has been engaged in self-assessment since 2003 and has made several adjustments to their program as a result of data gathered. Early use of indirect measures has been steadily augmented by use of direct measures, including ACS critical assessment tools and exams. This is particularly important to note, since students are being evaluated by a standard test generated from outside the university (and thus, more "objective" in what it can reveal about the program and its students).

Learning measures and outcomes were clearly mapped at the course level to the department’s goals and objectives, which were in turn achievable, practical, and well thought-out.

Committee members were impressed with the amount of thought given to helping students to learn. The phrase “above and beyond” was used several times.

Challenges faced by the department include the usual facility problems of classrooms with badly aligned projectors, screens, and white boards. Additionally, the lecture hall configuration makes it difficult for faculty and students to interact, and students’ line of sight to board at the bottom is a problem.
All faculty are teaching overloads; additional full-time tenure-track positions are needed.

Course cancellations have risen dramatically and particularly effect gateway courses like organic chemistry. Without that gateway into the major, the number of graduates is likely to decrease contrary to the recent rise in majors. At the same time, the department could easily fill even more sections of the general chemistry course for nursing. Cancellations also cut into lab fees the department needs to, for example, maintain lab equipment.

Also a noted recent increase in the number of majors resulted in the planning for a 2 year course rotation to be placed on hold.

Mixed messages from the administration regarding the importance of STEM disciplines on the one hand, and course cancellations on the other, are frustrating. The department is striving to compete with other schools in the area and respond to the call for more STEM education but hampered by administrative actions that undermine the program.

The committee offered suggestions for the department’s consideration as it continues the self-assessment process.

It’s not the department’s responsibility to conduct alumni surveys. If, however, the department would like to gather its own data, models suggested included asking for contact information any time a graduate requests something from the department, and conducting an exit interview with seniors during which contact info is gathered.

For recruitment, it might be helpful to advertise the very high employment rate of graduates.

Recommendation to UCF:
PRAC recommends that the Chemistry Department be granted continuing approval.

Submitted by S. Clerc