

Student Learning Outcomes Assessment Summary

Chemistry, B.S.

CNSM

2014-2015 and 2015-2016

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1. Assessment information collected

SLOA criteria 1) In both Academic Years, lower level ACS examinations were for General Chemistry I and II. All scores were near national norms for these evaluations. Enrollment in the Majors/Honors lab of Chem 105 and 106, General Chemistry I and II, has been low.

SLOA criteria 2) We offered the American Chemical Society Diagnostic of Undergraduate Chemical Knowledge 2008 (DUCK 08) to nine senior chemistry majors in Fall 2014 and five seniors in Fall 2015. The median score was 84 percentile for all 14 students. The low was 26th percentile and the high was 98 percentile (2 students). The results of the exit examination were studied for knowledge across the curriculum, and all areas were good.

SLOA criteria 3) Reports were of good quality. We collected and archived all reports from Chem 488 Undergraduate Chemistry and Biochemistry Research. The reports are stored on our department shared file system and are available to all department members. Others wishing to see these reports can request redacted versions.

SLOA criteria 4) The writing and oral skills of our graduates was found to be of high quality and the courses were found to be effective. Our students have been successful in obtaining URSA projects (9 proposals funded) in the time period, indicative of good scientific writing skills.

SLOA criteria 5) Our BS students successfully obtain employment or entrance into graduate or professional school.

2. Conclusions drawn from the information summarized above

SLOA criteria 1) No clear problems were identified from the data collected. All levels of instruction at the introductory level was judged satisfactory, except for the lower enrollment in the Chem 105 and 106 Majors/Honors Laboratory. The laboratory experiments need to be revised to attract more students.

SLOA criteria 2) The results of the exit examination were studied for knowledge across the curriculum, and all areas were good.

SLOA criteria 3) Reports were of good quality.

SLOA criteria 4) The writing and oral skills of our graduates was found to be of high quality and the courses were found to be effective.

SLOA criteria 5) Our BS students successfully obtain employment or entrance into graduate or professional school

3. Curricular changes resulting from conclusions drawn above

SLOA criteria 1) We are making efforts to enhance our Majors/Honors laboratory for Chem 105 and 106, General Chemistry I and II. A faculty member is in charge of developing these laboratories. Funding has been obtained through INBRE to develop these labs during the Summer of 2016.

SLOA criteria 2) No changes made.

SLOA criteria 3) No changes made.

SLOA criteria 4) No changes made.

4. Identify the faculty members involved in reaching the conclusions drawn above and agreeing upon the curricular changes resulting

William Howard, William Simpson, Tom Kuhn, Tom Green