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| Department/Program: Chemistry | Chair/Director: Nelson Deleon/Linda Wozniewski | Assessment cycle/year: |
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Mission/Purpose

Our mission is to provide students with excellent opportunities to study the chemical and physical sciences.

Student learning outcomes (Goals):

Ex. Program will produce well-prepared graduates. (Add more lines as needed.)

Goal 1. Students will achieve a solid foundation in all fields of chemistry

Goal 2. Students will design and perform chemical experiments and will learn to comprehend and produce scientific writing in chemistry

Goal 3. Students will learn to critically evaluate scientific findings and be competent in scientific and quantitative reasoning

Goal 4. Students in introductory courses will understand the two basic components of the scientific method: theory and experimentation.

Which Student learning outcomes (Goals) did you assess this year?

Goal 2 was assessed using the introductory majors classes, C125 and C126, P201, P221, P202, & P222

Assessment Summary

| Outcomes/Objectives | Measure(s) | Findings | Action Plans |
|---|--|--|--|
| <i>Ex. Students will demonstrate proficiency in oral communication.</i> | <i>Rubric applied to capstone project presentations.</i> | <i>60% of students scored a 3 or higher.</i> | <i>Provide tutorials and practice sessions for oral presentations once a month through the tutoring center.</i> |
| 1. Students will perform experiments | Number of experiments students performed were counted | Students performed an average of 12 experiments per course | Students missing classes will be contacted so they do not get behind |
| 2. Students will design experiments | Students' ability to correctly design an experiment, including appropriate # of variables, and repetitions were assessed | By the end of P202 & P222 85% of the students could correctly design an experiment | Provide more support to students when designing experiments |
| 3. Students will produce scientific writing | Lab reports were assessed for scientific accuracy, writing, and plagiarism. | 95% of the students could get 80 or above on their lab reports by the end of the program | Have the students write more formal reports earlier in the program and make more use of TurnItIn.com to eliminate plagiarism |
| 4. Students will comprehend scientific writing | Students ability to write lab reports was assessed | 95% of the students could get 80 or above on their lab reports by the end of the program | Add another component to the lab in which students have to evaluate a literature article. |
| 5. | | | |

Analysis Questions

Based on your findings and action plans, what primary changes will you make for student learning? Program outcomes? Changes to the assessment process?

1. TurnItIn.com will be adopted for use in the Chemistry labs

2. A new component of the labs will be to evaluate more literature.

3. The department recently established a requirement that all students doing research for credit (C409) must turn in a 5-10 page written report describing their research. The report must be in the style of a paper, including a title, body and references.