

#4. 2017 – 18 Executive Summary: Undergraduate Program Assessment: Alternative Delivery

Submit to the Assessment Committee Chair via email.

Department: Natural and Computer Science	Date: 7/19/2018	Course(s): Chem 115
Alternative Format(s) – select as many as are applicable: Dual Credit		
Members (must include more than course instructor only) involved with analysis of artifacts: Kristy Jurchen, Robert Hermann		
See #3 Assessment Plan: Alternative Delivery: Student Outcomes for: a) <i>Course requirement evaluation;</i> b) <i>Student Outcome;</i> c) <i>Question(s);</i> e) <i>Methodology</i>		
Analysis of artifacts: 1). Student Outcome: PERFORMANCE CRITERIA * - <i>How was data analyzed? (attach rubrics/scoring tools if used).</i> The scores on the multiple-choice American Chemical Society (ACS) First Semester General Chemistry final exam were gathered from all instructors and averaged separately for the on-campus and Dual Credit students. 2). COMPARABILITY – <i>How did you determine if the outcomes of the traditional and alternative deliver modes were comparable?</i> (note “na” if delivery modes were not compared). If the average scores are similar between the Dual Credit and on-campus students, or if the Dual Credit students outperform the on-campus students, the outcomes are considered to be comparable.		
Summary of RESULTS*: 1). <i>Restate the assessment question(s) (from the Assessment plan):</i> Are students able to understand and apply the general principles of chemistry? 2). <i>Summarize the assessment results. A narrative summary is required. Charts, tables or graphs are encouraged but optional.</i> The average final exam score for the on-campus students during the 2017-18 school year was 36 points with a standard deviation of 12.7 points. The average score for all Dual Credit students was 42.4 points, with a standard deviation of 11.4 points. Four of the schools outperformed the on-campus students, with class averages of 49.3, 43.5, 43.1, and 46.1 points. Two of the schools did not outperform the on-campus students, with class averages of 33.3 and 32.0 points. The difference between these schools and the on-campus students was not statistically significant. 3). INTERPRETATION * - <i>Discuss how the results answer the assessment question(s).</i> The national average score on this version of the ACS exam is 40.73 points, with a standard deviation of 11.11 points. The Dual Credit student scores, on average, exceed both the on-campus CUNE students and the national average. The Dual Credit students are able to understand and apply the general principles of chemistry as well as the average General Chemistry student in the nation. 4). <i>Observations made that were not directly related to the question(s). (i.e. interrater reliability of the scoring tool was low)</i> The two schools that did not outperform the on-campus students offered Chem 115 for dual credit for the first time this year. With additional teacher experience in the course, the average scores are expected to improve. 5). How did the outcomes of the traditional and alternative format analysis compare? The Dual Credit scores were higher than the on-campus scores, on average.		
Sharing of Results: <i>When were results shared? Date:</i> July 19, 2018 <i>How were the results shared? (i.e. met as a department) via email</i> <i>Who were results shared with? (List names):</i> Robert Hermann, Kyle Johnson, Jennifer Fruend		
Discussion of Results –Summarize your conclusions including: 1. ACTION *- <i>How will what was learned from the assessment impact the alternative format teaching of this course starting the next academic year?</i> The Dual Credit instructors have been successful in teaching their students the general principles of chemistry. No adjustment will be imposed on the Dual Credit instructors. The two schools who did not outperform the on-campus students will be monitored to see if their scores improve with further teacher experience. 2. IMPACT *- <i>What is the anticipated impact of the ACTION* on student achievement of the learning outcome in the next academic year?</i> We expect the outcome to be similar next year, with a higher proportion of schools outperforming the on-campus students. 3. BUDGET IMPLICATIONS – <i>Indicate budget requirements necessary for the successful implementation of the ACTION* (i.e. an additional staff person, new equipment, additional sections of a course).</i> none		
Submitted via email to Assessment Committee Chair by: Kristy Jurchen		
Reviewed by the Assessment Committee (date): 7/19/18		
Submitter notified/additional action needed: na BUDGET IMPLICATIONS – Assessment Committee Chair notified appropriate Dean: na Approved & Posted to Assessment site: 7/19/18		