

2020– 21 Alternative Delivery Executive Summary

Submit to the BlackBoard Assessment Site.

Department: Natural and Computer Science Date: 6/23/2021 Course(s): Chem 115
Alternative Format(s) – select as many as are applicable: Dual Credit Select Select
Members (must include more than course instructor only) involved with analysis of artifacts: Kristy Jurchen, Kyle Johnson, Robert Hermann
See Alternative Delivery Assessment Plan 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 delivery modes were comparable? (note “na” if delivery modes were not compared).</i> 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> Results were available from five Dual Credit schools. The average final exam score for the on-campus students during the 2020-21 school year was 33 points with a standard deviation of 13.5 points. The average score for all Dual Credit students was 35.5 points, with a standard deviation of 11.8 points. Two schools outperformed the on-campus students, with class averages of 44 points. Three schools did not outperform the on-campus students, with class averages of 24-25 points. The difference between the lower-scoring 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 the on-campus CUNE students. This year, the Dual Credit scores do not match the national average of this exam in past years. However, lower scores are not surprising during the upheaval of the pandemic. Considering the global situation and local upheaval due to quarantine and covid protocols, the Dual Credit student were able to adequately understand and apply the general principles of chemistry. 4). <i>Observations made that were not directly related to the question(s). (i.e. interrater reliability of the scoring tool was low)</i> This pandemic year was unusual for all instructors and students, to say the least. It is understandable that the scores would be lower than expected this year. We anticipate that scores will largely rebound next year. 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> June 24, 2021 <i>How were the results shared? (i.e. met as a department)</i> via email <i>Who were results shared with? (List names):</i> Robert Hermann, Kyle Johnson, Jennifer Freund
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 schools that did not outperform the on-campus students will be monitored to see if their scores improve with a return to normal, non-pandemic operations. 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 by: Kristy Jurchen Assessment Committee Reviewed (date): 7/9/21

Submitter notified approval/additional action needed: Approved

BUDGET IMPLICATIONS – Assessment Committee Chair notified appropriate Dean: na