

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

Submit to the Assessment Committee Chair via email.

<b>Department:</b> Natural Sciences	<b>Date:</b> June 21, 2018	<b>Course(s):</b> Bio 111
<b>Alternative Format(s) – select as many as are applicable:</b> Dual Credit		
<b>Members</b> (must include more than course instructor only) <b>involved with analysis of artifacts:</b> Jenn Fruend, Rob Hermann, Kristy Jurchen		
<b>See #3 Assessment Plan: Alternative Delivery: Student Outcomes for:</b> a) <i>Course requirement evaluation</i> ; b) <i>Student Outcome</i> ; c) <i>Question(s)</i> ; e) <i>Methodology</i>		
<b>Analysis of artifacts:</b> 1). Student Outcome: <b>PERFORMANCE CRITERIA*</b> - <i>How was data analyzed? (attach rubrics/scoring tools if used).</i> The scores on a common multiple choice exam were compared. 2). <b>COMPARABILITY</b> – <i>How did you determine if the outcomes of the traditional and alternative delivery modes were comparable?</i> (note “na” if delivery modes were not compared). The class averages and standard deviations were calculated. An unpaired t-test was used to calculate a p-value for each class compared to Concordia.		
<b>Summary of RESULTS*:</b> 1). <i>Restate the assessment question(s) (from the Assessment plan):</i> Do students understand basic concepts of the process of science, cell biology, biochemistry, genetics, and molecular biology, and can they apply their knowledge of these topics? 2). <i>Summarize the assessment results. A narrative summary is required. Charts, tables or graphs are encouraged but optional.</i> Concordia scored significantly higher (using a 95% confidence interval) than two of the three schools. The third school scored lower than Concordia, but the results were not significant. 3). <b>INTERPRETATION*</b> - <i>Discuss how the results answer the assessment question(s).</i> Overall, both CUNE and dual credit schools score significantly lower than we would hope for students who have a basic understanding of the process of science, cell biology, biochemistry, genetics, and molecular biology, and had difficulty applying their knowledge in these areas. 4). <i>Observations made that were not directly related to the question(s). (i.e. interrater reliability of the scoring tool was low)</i> A few observations that are not directly related to the question are 1) a very similar exam (some questions changed) was given last year and the schools scored fine on the exam, and 2) two of the three instructors are new to teaching this course as a dual credit course, 3) course sizes for the dual credit schools were extremely small, 4) some of the dual credit schools cover more material than we cover (material that would coincide with Bio 112 material) and still don't give the common assessment until after all the material has been covered, leaving a gap between when the Bio 111 material was covered and when the assessment was given. 5). <b>How did the outcomes of the traditional and alternative format analysis compare?</b> Traditional format students scored higher than all of the dual credit schools, with two of the three differences being significant.		
<b>Sharing of Results:</b> <i>When were results shared?</i> Date: TBD <i>How were the results shared? (i.e. met as a department)</i> TBD <i>Who were results shared with? (List names):</i> TBD		
<b>Discussion of Results –Summarize your conclusions including:</b> 1. <b>ACTION*</b> - <i>How will what was learned from the assessment impact the alternative format teaching of this course starting the next academic year?</i> I will be in contact with the schools to see if they can tell me what in particular the students were struggling with and plan to provide advice accordingly. The common assessment will also be reviewed to see how it corresponds to course objectives, and adjustments will be made accordingly. 2. <b>IMPACT*</b> - <i>What is the anticipated impact of the ACTION* on student achievement of the learning outcome in the next academic year?</i> The hope is for these actions is that the instructors will be better able to address material that their students had trouble with, and the common assessment will be a better measure of course objectives. 3. <b>BUDGET IMPLICATIONS</b> – <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		
<b>Submitted via email to Assessment Committee Chair by:</b> Rob Hermann		
<b>Reviewed by the Assessment Committee (date):</b> 7/19/18		
<b>Submitter notified/additional action needed:</b> na <b>BUDGET IMPLICATIONS</b> – Assessment Committee Chair notified appropriate Dean: na <b>Approved &amp; Posted to Assessment site:</b> 7/19/18		