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

Submit to the Assessment Committee Chair via email.

Department: Mathematics   **Date:** 6/14/2018   **Course(s):** Math 184

Alternative Format(s) – select as many as are applicable:

Dual Credit   Select   Select   Select   Select   Select

Members (must include more than course instructor only) **involved with analysis of artifacts:**

See #3 Assessment Plan: Alternative Delivery: Student Outcomes for: *a) Course requirement evaluation; b) Student Outcome; c) Question(s); e) Methodology*

Analysis of artifacts:

1). Student Outcome*: **PERFORMANCE CRITERIA*** - How was data analyzed? (attach rubrics/scoring tools if used).* Students were given a graphical analysis problem divided into 5 parts. Each student's score was his or her number of correct or consistent questions out of 10.

2). **COMPARABILITY** – *How did you determine if the outcomes of the traditional and alternative deliver modes were comparable?* (note "na" if delivery modes were not compared). The traditional students and the Dual Credit students taking the exam were treated as two random samples, and a T-Test was used to test the claim that the Dual Credit students come from a population whose average score is at least as high as the average score of the population from which the traditional students come.

Summary of RESULTS*:

1). *Restate the assessment question(s) (from the Assessment plan):* Can students use derivatives to analyze the graph of a function?

2). *Summarize the assessment results. A narrative summary is required. Charts, tables or graphs are encouraged but optional.* The 30 traditional students taking the assessment had a mean score of 4.4 and a standard deviation of 0.93. The 48 dual credit students had a mean of 4.5 with a standard deviation of 0.78. A two sample t-test of the claim that the Dual credit students score at least as well as the traditional students yields a p-value of 0.69. There is no eveidence reject the claim.

3). **INTERPRETATION*** - *Discuss how the results answer the assessment question(s).* Both populations seemed capable of the given taks.

4). *Observations made that were not directly related to the question(s). (i.e. interrater reliability of the scoring tool was low)* none

5). ***How did the outcomes of the traditional and alternative format analysis compare?*** The scores were comparable for the two groups.

Sharing of Results:

When were results shared? Date: 6/29/18

How were the results shared? (i.e. met as a department) electronically

Who were results shared with? (List names): Brian Albright, Ed Reinke, Andy Langewisch

Discussion of Results –Summarize your conclusions including:

1. **ACTION***- *How will what was learned from the assessment impact the alternative format teaching of this course starting the next academic year?*   no specific action will be taken at this time

2. **IMPACT***- *What is the anticipated impact of the* **ACTION*** *on student achievement of the learning outcome in the next academic year?*   none

3. **BUDGET IMPLICATIONS** – *Indicate budget requirements necessary for the successful implementation of the* **ACTION*** *(i.e. an additional staff person, new equipment, additional sections of a course).*   none

Submitted via email to Assessment Committee Chair by: Ed Reinke

Reviewed by the Assessment Committee (date): 7/2/18

Submitter notified/additional action needed: na

BUDGET IMPLICATIONS – Assessment Committee Chair notified appropriate Dean: 7/2/18