

## 2020 – 21 Departmental Executive Summary

<b>Department:</b> Business and Mathematics	<b>Date:</b> 5/14/2021
<b>Members involved with analysis of artifacts:</b> Edward Reinke and Brian Albright	
<b>See #1 Undergraduate Program Assessment Plan: Student Outcomes for:</b> a) Student Outcome; b) Background; c) Question(s); d) Methodology	
<b>Analysis of artifacts:</b> 1). <b>PERFORMANCE CRITERIA</b> * - How was data analyzed? (attach rubrics/scoring tools if used). A four point rubric was applied to each of the outcomes. The four categories are "Exceeds Expectations", "Meets Expectations", "Needs Improvements", and "Unacceptable".	
<b>Summary of RESULTS*:</b> 1). Restate the assessment question(s) (from the Assessment plan): Are students able to effectively communicate a correct mathematical argument? 2). Summarize the assessment results. (A narrative summary is required. Charts, tables or graphs are encouraged but optional.) Data was collected from Math 252 during the second semester. The assessment tool was an examination that contained 10 proofs. The responses were evaluated for correct mathematical arguments as well as effective communication and mathematical style. There were 18 students in the course and 11 of those students exams were scored as Exceeds Expectations (5) or Meets Expectations (6), 4 were scored as Needs Improvement and 3 as Unacceptable. 3). <b>INTERPRETATION</b> * - Discuss how the results answer the assessment question(s). The data collected showed that a smaller percentage (61%) of students are at least meeting expectations in this critical area. During the previous academic year all students at least met expectations. A few explanations are possible. The group of students had greater variations in their level of preparation and abilities. Additionally, this year there were many more students in the elementary and middle level education programs. Rather than this being a transitions course they view it as a terminal mathematics course. 4). Observations made that were not directly related to the question(s). Students who are elementary education students might not see the relevance of the course material for their chosen academic program.	
<b>Sharing of Results:</b> When were results shared? Date: 5/14/2021 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	
<b>Discussion of Results –Summarize your conclusions including:</b> 1. <b>ACTION</b> *- How will what the department learned from the assessment impact: a. Teaching: Accommodations might be needed for certain students in the course or alternative courses may need to be considered. b. Assignment/course: Math 252 c. Program: Mathematics d. Assessment: The same assessment will be used next year. 2. <b>IMPACT</b> *- What is the anticipated impact of the <b>ACTION</b> * on student achievement of the learning outcome in the next academic year? At least 80% of students will achieve a level of Meets Expectations or Exceeds Expectations. 3. <b>BUDGET IMPLICATIONS</b> – Indicate budget requirements necessary for the successful implementation of the <b>ACTION</b> * none	
<b>If action is taken – it is recommended that the same learning outcome and assessment plan be used for a second assessment cycle.</b>	
<b>What assessment questions related to the learning outcome would the program like to investigate in the future?</b> We will continue to assess the same outcome.	
<b>Submitted by:</b> A. Langewisch	<b>Reviewed by the Assessment Committee (date):</b> 7/6/2021
<b>Department Chair notified approved/additional action needed:</b> Approved 7/6/2021	
<b>BUDGET IMPLICATIONS – Assessment Committee Chair notified appropriate Dean:</b> None	