ASSESSMENT OF STUDENT LEARNING OUTCOMES IN GENERAL EDUCATION

SUMMARY REPORT

Use this form to provide a summary report on campus-based assessment of student learning outcomes in General Education

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Name of Institution: SUNY Canton **Academic Year:** 2017-2018
{*specify name of branch campus, if relevant*}

Program improvements made as a result of the previous assessment of General Education**:**

SUNY Canton does not have a mathematics program, but serves all major programs on campus. To better serve these programs and to adjust for GER 1 objectives, all course syllabi were reviewed and revised as necessary to meet these objectives and to better align with campus program needs. The last assessment showed that the mathematics department should explore ways to improve student performance for objectives 3, 4, and 5. As there was some question as to whether the objectives had not been met or whether the questions had not been designed correctly to meet those objectives, steps were taken to review and revise questions pertaining to those objectives.

In the course of conducting this cycle of assessment, were there any significant deviations from the plan that was approved by the General Education Assessment Review (GEAR) Group? If so, please comment on why the campus felt that it was necessary to make these changes and how these changes may have affected the reported results, if at all.

In the course of conducting this cycle of assessment, there were no significant deviations from the plan that was approved by the General Education Assessment Review (GEAR) Group. The NYS rubrics for assessing GER 1, mathematics courses were followed.

Major findings of this assessment:

The learning outcomes were assessed by course embedded questions on hourly and final exams for each of the designated math courses. The Director of Institutional Research at SUNY Canton provided a random sample (20%) and the mathematics department collected the necessary information from these exams and employed the rubrics proposed by the "Discipline Panel in Mathematics – (09/08/05)" as the assessment tool. According to SUNY Canton's plan, success was determined per outcome if 70% of participants scored 2 or 3. It was determined that Objectives 1, 2, and 3 were successfully met with and overall of 70% - 75% receiving 2s and 3s. Objective 4, was very close to the anticipated percentage for success with 69% having 2s and 3s. The results of this assessment were better than the previous one where only objectives 1 and 3 were successfully met and objectives 4 and 5 were considered unsuccessful (65%, and 50%, respectively). Objective 5 remains to be a concern as only 50% met that objective. This was not an improvement from the previous time as 52% met this objective the last time. Looking at individual courses, the higher the level of math, the better the students performed. This is to be expected as most mathematics courses are sequential and students are expected to do better as they progress through the courses. An interesting finding that was evident in the last assessment, was that Precalculus students did better than College Algebra students, even though the same questions were asked in both courses. Another anomaly was found in the Statistics courses where there was a discrepancy within the individual instructors. This was even more pronounced in the Survey of Mathematics classes. While objectives 2 and 3 were met by all three instructors, objectives 1 and 4 were only met by 2, and each objective was met by different instructors.

Action to be taken in addressing these assessment findings:

The faculty will continue to review the questions used for assessment to be sure they are meeting the objectives and the rubrics per course may need to be revised. It is difficult to determine if the students did not meet the objectives as witnessed in the scores, or whether the questions and rubrics themselves were not defined properly to meet the objectives. Objectives 5 is a difficult objective to assess, as everyone seems to read and interpret this objective differently. The math faculty will review all questions and rubrics used for assessment and revise them as needed to ensure they are in alignment with the requirements for Gen Ed approval. Individual courses may need to be revised to meet the requirements. As the percentages meeting each objective varied per course, the math faculty will review each individual course to determine where the problems occurred within each course. Some courses may need to be revised while other problems may be solved by reviewing and revising the rubrics used for this assessment. The objective questions for Statistics will need to be looked at to see why the scores were varied among instructors. It will also be necessary to look at College Algebra and Precalculus to determine why more students in Precalculus met the objectives on the same questions than did those in College Algebra. This may be because precalculus students had more math in high school and so, were better prepared upon entering the course. This same difference was found in the last assessment. The difference in the Math 111 courses needs to be investigated. As all questions were the same for each class, the difference appears to be within the individual instructors. It is not evident from the data why this difference occurred.

What has been learned that could be helpful to others as they conduct assessment of General Education**:**
Objectives need to be evaluated every semester and not just every three years.

Chief Academic Officer: _____ **Date:** _____