

SOUTH DAKOTA BOARD OF REGENTS

Academic and Student Affairs
Consent

AGENDA ITEM: 6 – Z
DATE: December 7-8, 2022

SUBJECT

General Education Assessment Report

CONTROLLING STATUTE, RULE, OR POLICY

[BOR Policy 2:7](#) – Undergraduate General Education Requirements

[BOR Policy 2:11](#) – Assessment

[AAC Guideline 8.3](#) – General Education Curriculum Requirements

[AAC Guideline 8.7](#) – General Education Assessment Reporting

BACKGROUND / DISCUSSION

BOR Policy 2:11, Section 2.1, outlining institutional and system responsibilities regarding the assessment of the general education program, states that each institution shall:

“Assess and analyze student achievement of the goals and learning outcomes of the established SDBOR System General Education Requirements. Each university will submit a report of their assessment findings annually to the Board at its December meeting. AAC Guidelines outline the required components of the report.”

AAC Guideline 8.7 (General Education Assessment Reporting) requires the six Regental institutions to assess two of the six general education goals per year, on a rotating basis. In 2020-2021 the universities assessed Goal 1: Written Communication and Goal 5: Quantitative Reasoning.

The primary method involved in this process included randomly selecting general education course sections while also ensuring that modality, location, and term were considered (stratified sampling, defined as a type of sampling methodology in which the total population is divided into smaller groups or strata to complete the sampling process¹). The universities then used rubrics generated by the respective system discipline councils which were aligned to the system student learning outcomes for each goal. From this process then, student artifacts from each course were evaluated.

¹ [What does stratified sampling mean? \(definitions.net\)](https://www.definitions.net/definition/stratified%20sampling). <https://www.definitions.net/definition/stratified%20sampling>

(Continued)

INFORMATIONAL ITEM

Note, institutions that were unable to utilize this assessment method due to the abrupt transition to online learning in the spring of 2020 developed appropriate alternative processes.

IMPACT AND RECOMMENDATION

The observed proficiency rates were satisfactory across all learning outcomes. In aggregate, over 86% of the artifacts reviewed were evaluated to be proficient or excellent for each of the four student learning outcomes for Goal 1, and 80% of the artifacts reviewed were deemed to be proficient or excellent for the two Goal 5 student learning outcomes.

One of the findings noted is the need for clear student learning outcomes and revision of the rubrics with respect to performance levels. Dr. Carriveau will meet with the Social Science and Natural Science faculty discipline councils to discuss the findings and request additional feedback on student outcomes and rubrics utilized.

In addition to the system's general education recommendations, each of the institutions have documented their findings and steps to enact their respective plans for improvement.

ATTACHMENTS

Attachment I – BHSU General Education Assessment Report

Attachment II – DSU General Education Assessment Report

Attachment III – NSU General Education Assessment Report

Attachment IV – SDSMT General Education Assessment Report

Attachment V – SDSU General Education Assessment Report

Attachment VI – USD General Education Assessment Report



SOUTH DAKOTA BOARD OF REGENTS ACADEMIC AFFAIRS FORMS

General Education Assessment Form

Use this form to report the university General Education Assessment per AAC Guideline 8.7.A and BOR Policy 2:11. This report should be no more than 5-10 pages in length.

NOTE: This form will be provided to the Board of Regents at their June BOR meeting.

Black Hills State University	2020-2021	
Institution	Academic Year Reporting Period	
Dana Richey		
Assessment Representative	Institutional Approval Signature	Date
Provost		
	Provost Approval Signature	Date

Section 1. Introduction

The foundation of success in education comes from General Education, the program which provides the knowledge and skills students will need to succeed. General education requirements in South Dakota are outlined in SDBOR Policies 2:7, 2:11, and 2:26, and AAC Guidelines 8.3, 8.4, and 8.7.

The two System General Education Goals and Student Learning outcomes this year are Goal 1: Students will write effectively and responsibly and will understand and interpret the written expression of others, as well as Goal 5: Students will understand and apply fundamental mathematical processes and reasoning.

Section 2: Goals Assessed

Goal Assessed: Goal 1 Written Communication

SLO1: Write using standard American English, including correct punctuation, grammar, and sentence structure.

Methodology: Writing Skill Assessment (*the same for each goal assessed for Goal 1*)

Writing Analysis: Faculty members assessed student papers from ENGL 101 (N=21) and ENGL 201 (N=28).

Each artifact was analyzed using the above rubric that was developed using the SDBOR specified Student Learning Outcomes for General Education Goal 1: English. This rubric was developed by the General Education Committee which created a special task force made up of a sample of English faculty to define and specify the performance levels for the SLOs.

When analyzed, artifacts exceeding the standard (“Exemplary”) were given a 3, those meeting the standard (“Proficient”) were given a 2, and those not achieving the standard (“Below Proficient”) were given a 1.

Level of Achievement/Learning Outcome: SLO1 – Mechanics, Grammar, and Syntax:

All artifacts (N=49) – the mean score was 2.24

Only lower-division (N=21) – the mean score was 2.29

Only upper-division (N=28) – the mean score was 2.21

Among all students, 87.8% met or exceeded the standard.

Analysis of student writing artifacts indicates that students are achieving expectations in this area as indicated by the mean scores above 2 for the sampled artifacts.

SLO2: Write logically.

Methodology: Same as SLO1

Level of Achievement/Learning Outcome: SLO2 – Logical Development:

All artifacts (N=49) – the mean score was 2.06

Only lower-division (N=21) – the mean score was 1.95

Only upper-division (N=28) – the mean score was 2.14

Among all students, 77.6% met or exceeded the standard.

Analysis of student writing artifacts indicates that students are achieving expectations in this area as indicated by the mean scores above 2 for those artifacts sampled from upper-division courses.

SLO3: Write persuasively, using a variety of rhetorical strategies (e.g., exposition, argumentation, description).

Methodology: Same as SLO1

Level of Achievement/Learning Outcome: SLO3 – Persuasion:

All artifacts (N=49) – the mean score was 2.02

Only lower-division (N=21) – the mean score was 1.81

Only upper-division (N=28) – the mean score was 2.18

Among all students, 71.4% met or exceeded the standard.

Analysis of student writing artifacts indicates that students are achieving expectations in this area as indicated by the mean scores above 2 for those artifacts sampled from upper-division courses.

SLO4: Incorporate formal research and documentation into their writing, including research obtained through modern, technology-based research tools.

Methodology: Same as SLO1

Level of Achievement/Learning Outcome: SLO4 – Research and Documentation:

All artifacts (N=49) – the mean score was 2.18

Only lower-division (N=21) – the mean score was 2.24

Only upper-division (N=28) – the mean score was 2.14

Among all students, 85.7% met or exceeded the standard.

Analysis of student writing artifacts indicates that students are achieving expectations in this area as indicated by the mean scores above 2 for the sampled artifacts.

Goal Assessed: Goal 5 Mathematical Process and Reasoning

SLO1: Students will use mathematical symbols and mathematical structure to model and solve real world problems.

Methodology: Problem Solving Assessment: Four faculty members from the math program met to read/analyze a sample (N=46) of math problems completed by students. These artifacts came from the MATH 103 (N=7) and MATH 114 (N=39) classes.

Each artifact was analyzed using the above rubric that was developed using the SDBOR specified Student Learning Outcomes for General Education Goal 5: Mathematics. This rubric was developed by the General Education Committee which created a special task force made up of a sample of faculty (largely from Mathematics) to define and specify the performance levels for the SLOs.

When analyzed, artifacts exceeding the standard (“Exemplary”) were given a 3, those meeting the standard (“Proficient”) were given a 2, and those not achieving the standard (“Below Proficient”) were given a 1.

Level of Achievement/Learning Outcome: SLO1 – Computational Skills:

All artifacts (N=46) – the mean score was 2.48. Among all students, 89.1% met or exceeded the standard.

Analysis of student computational artifacts indicates that students are achieving expectations in this area as indicated by the mean scores above 2 for the sampled artifacts.

SLO2: Students will demonstrate appropriate communication skills related to mathematical terms and concepts.

Methodology: Problem Solving Assessment, refer to Goal 5 SLO1

Level of Achievement/Learning Outcome: SLO2 – Communication Skills:

All artifacts (N=46) – the mean score was 2.48. Among all students, 89.1% met or exceeded the standard.

Analysis of student writing artifacts indicates that students are achieving expectations in this area as indicated by the mean scores above 2 for the sampled artifacts.

Section 3. Findings

Goal Assessed: Goal 1 Written Communication

Interpretation of Findings: The findings reflect a steady improvement across most of the student learning outcomes which show a greater emphasis placed on research and documentation throughout BHSU's composition courses during that timeframe. There was also a push to encourage students to use the campus writing center during this period.

Comparison of Findings from Prior Period: The overall mean score for SLO 1 was nearly identical to the mean score calculated six years ago. The mean for SLO 2 dropped slightly, while the mean for SLO 3 rose slightly during the same period. However, the mean for SLO 4 rose considerably over the past six years.

Goal Assessed: Goal 5 Mathematical Process and Reasoning

Interpretation of Findings: The supplied data did not report students' computational and math communication skills separately. Therefore, the same results were used for each of the student learning outcomes above. During the next cycle, these data will need to be separated in order to test each of the General Education SLOs.

Comparison of Findings from Prior Period: The reported results demonstrate that nearly all students achieved or exceeded each of student learning outcomes outlined in General Education Goal 5, with 89.1% of students meeting or exceeding the requirements for SLO 1 and SLO 2. These scores cannot be directly compared to those from six years ago. This is because the courses sampled this year were basic mathematics courses, whereas the previous sample was taken from algebra and research methods courses.

Section 4. Plans for Continuous Improvement

Goal Assessed: Goal 1 Written Communication

The overall mean score for SLO 1 was nearly identical to the mean score calculated six years ago. The plan should remain to continue enhancing the program while also maintaining basic standards of practice.

SLO 2 and SLO 3: Although most students (77.6%) achieved or exceeded the requirements of SLO 2, the results reported here suggest that a quarter of our students have difficulty making logical arguments. Students might find a workshop on logic and persuasion (SLO 3) useful.

Goal Assessed: Goal 5 Mathematical Process and Reasoning

The results do not collect the appropriate data to show whether scores are rising or falling. They merely give a baseline for the next assessment cycle if the program samples data from basic mathematics courses rather than algebra and research methods courses. The plan for improvement needs to be one of consistency so that comparable and measurable artifacts can produce scores to properly assess a program's successes and/or failures.

Section 5. Summary**Goal Assessed: Goal 1 Written Communication**

The reported results demonstrate that nearly all students achieved or exceeded each of student learning outcomes outlined in General Education Goal 1. The range was 71.4% of students meeting or exceeding the requirements for SLO 3 to 87.8% of students meeting or exceeding the requirements for SLO 1. These percentages rose by around 10 points for SLO 1 and SLO 3, and by 29 points for SLO 4 (SLO 2's percentages were nearly unchanged). The dramatic increases across three of the learning objectives suggest that the changes recommended in the last General Education Assessment are working.

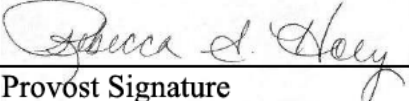
Goal Assessed: Goal 5 Mathematical Process and Reasoning

The reported results prove that nearly all students achieve or exceed the student learning outcomes outlined in General Education Goal 5, but the data is not comparable to the scores reported six years ago. While the goals are clearly being met, the data is sampled from two different courses than years previous. Further, the computational and communication skills were not reported separately. It should be noted to make these changes in future evaluations and assessments.



SOUTH DAKOTA BOARD OF REGENTS ACADEMIC AFFAIRS FORMS

General Education Assessment Form

Dakota State University	2020-2021	
Institution	Academic Reporting Year	
Dr. Jeanette McGreevy		
Assessment Representative	Institutional Approval Signature	Date
Dr. Rebecca Hoey		July 25, 2022
Provost	Provost Signature	Date

Section 1. Introduction

Dakota State University assesses all six general education System Graduation Requirements (SGRs) annually. Each of the six general education areas (English, Oral Communication, Social Sciences, Fine Arts/Humanities, Math, and Natural Sciences) has a designated faculty assessment leader who, in collaboration with other faculty teaching general education courses during the academic year, determines the course sections that will be included in each general education assessment area annually, course-embedded measures aligned with learning outcomes, targets, benchmarks, and use of results for improvement.

General education assessment leaders annually report learning outcome results to DSU's institutional Academic Assessment Coordinating Committee for accountability and feedback. The information provided in this report is extracted from DSU's Trojan Assessment Profile (TAP), an online assessment platform from the vendor Nuventive, that DSU began piloting in 2019-2020. General Education assessment leaders started using TAP in 2020-2021 as the repository for assessment plans, reports, and document storage.

As required by BOR Policy 2.11 (Assessment), this report includes learning outcomes results for Dakota State University students for the 2020-2021 academic year in the areas of ENGLISH and MATH.

Section 2: Goals Assessed (2020-2021)

SGR #1. Students will write effectively and responsibly and will understand and interpret the written expression of others.

Methodology:

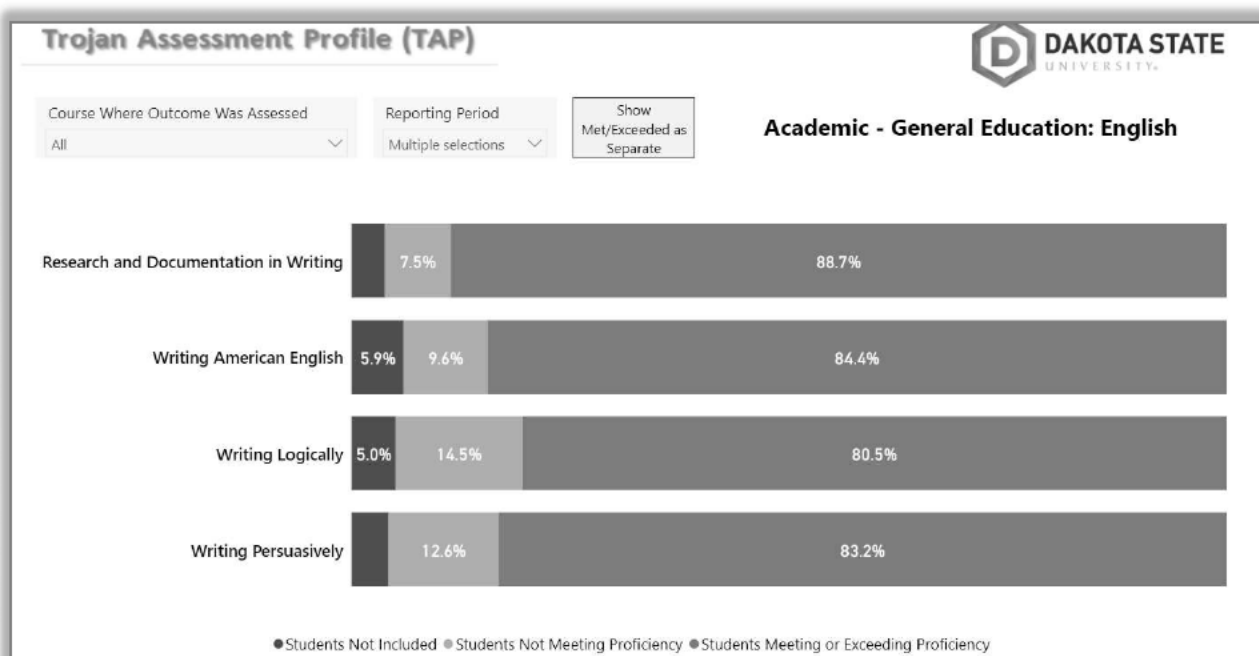
- Number of sections/courses in sample
 - Writing Standard English: 2
 - Writing Logically: 2
 - Writing Persuasively: 2
 - Research & Documentation in Writing: 1
- Number of students assessed
 - Writing Standard English: 135

- Writing Logically: 159
- Writing Persuasively: 95
- Research & Documentation in Writing: 53
- Measurement instruments selected
 - 4-Page Narrative Essay, Essay, Researched Position Essay, Test, Final Portfolio, Collection of Essays, Journal Article Review, Essay 4, Target Issue Research Essay, Academic Argument, Targeted Issue Investigation Essay

Level of Achievement/Learning Outcome

Note: "Students Not Included" indicates the % of students, for example, who did not hand in the assignment used for learning outcomes assessment.

- Writing Standard English
 - Exceeding Proficiency: 52.6%
 - Meeting Proficiency: 31.9%
 - Not Meeting Proficiency: 9.6%
 - Students Not Included: 5.9%
- Writing Logically
 - Exceeding Proficiency: 49.1%
 - Meeting Proficiency: 31.4%
 - Not Meeting Proficiency: 14.5%
 - Students Not Included: 5.0%
- Writing Persuasively
 - Exceeding Proficiency: 49.5%
 - Meeting Proficiency: 33.7%
 - Not Meeting Proficiency: 12.6%
 - Students Not Included: 4.2%
- Research & Documentation in Writing
 - Exceeding Proficiency: 26.4%
 - Meeting Proficiency: 62.3%
 - Not Meeting Proficiency: 7.5%
 - Students Not Included: 3.8%



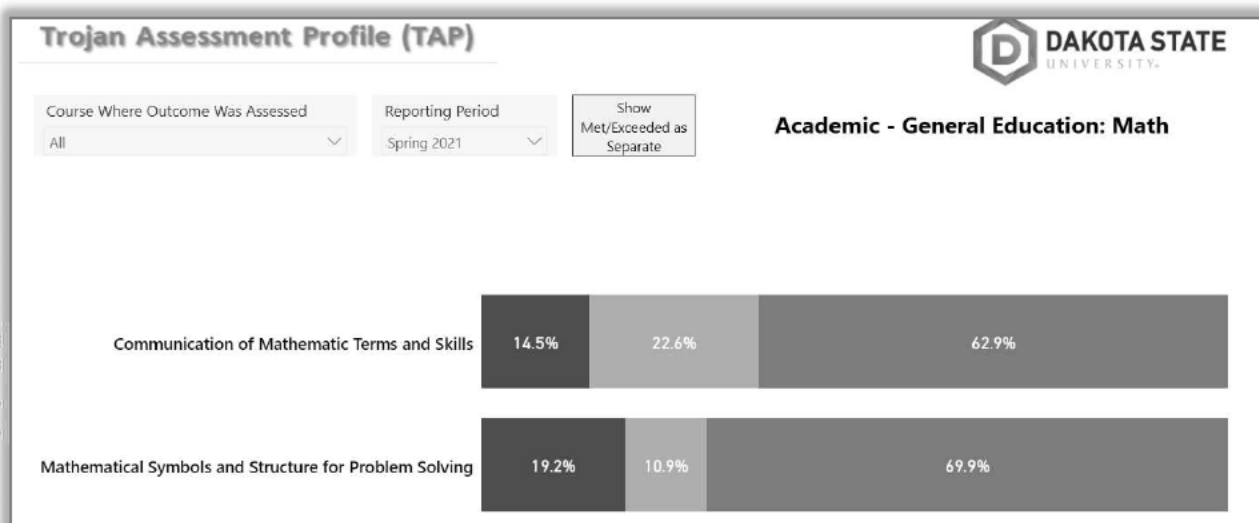
SGR #5. Students will understand and apply fundamental mathematical processes and reasoning.**Methodology:**

- Number of sections in sample
 - Communication of Mathematics Terms & Skills: 6
 - Mathematical Symbols & Structure for Problem Solving: 6
- Number of students assessed
 - Communication of Mathematics Terms & Skills: 159
 - Mathematical Symbols & Structure for Problem Solving: 156
- Measurement instruments selected
 - Communication of Mathematics Terms & Skills: Labeling Variables, Exam 3 Problem 5, Exam 2 Covering Techniques of Integration, Written Homework 4, Explaining Steps Needed to Solve a Problem
 - Mathematical Symbols & Structure for Problem Solving: Exam 3 Problem 3, Written Homework 8, Exam 3 Covering Applications and Integration

Level of Achievement/Learning Outcome

Note: "Students Not Included" indicates the % of students, for example, who did not hand in the assignment used for learning outcomes assessment.

- Communication of Mathematics Terms & Skills
 - Exceeding Proficiency: 8.8%
 - Meeting Proficiency: 54.1%
 - Not Meeting Proficiency: 22.6%
 - Students Not Included: 14.5%
- Mathematical Symbols & Structure for Problem Solving
 - Exceeding Proficiency: 9.0%
 - Meeting Proficiency: 60.9%
 - Not Meeting Proficiency: 10.9%
 - Students Not Included: 19.2%



Section 3. Findings

SGR #1. Students will write effectively and responsibly and will understand and interpret the written expression of others.

- Interpretation of findings:

Samples of faculty conclusions from DSU's Trojan Assessment Profile:

- *Additional use of the Writing Center improved the overall understanding of the conventions of Standard American English. Continued use of the Writing Center and Peer Review sessions will be incorporated into the course.*
 - *The activities and assignments designed to help students understand how to write using standard American English were successful for the majority of students.*
 - *By the end of the term, students were successfully able to meet this assessment measure.*
 - *The course seems to provide sufficient opportunity for students to success and gain in using standard American English.*
 - *When I teach this class again, I will put increased focused attention to SAWE through supporting activities and more interactive editing (co-editing) with students on at least one paper. My performance target would be to increase the number of students who write clean.*
 - *The assignment was a success. They wrote well.*
 - *Course averaged a 70 percent on the essay. Students did a fine job on their fourth essay. Will continue to monitor progress and refine.*
 - *Students are learning the appropriate foundational skills to write an academic, researched, university-level essay.*
 - *Will continue to monitor data; however, this course was taught via Zoom, so data may be an outlier.*
- Comparison of findings to prior ratings periods; trends in students' achievement of the learning outcome over time:
 - Prior to DSU's implementation of its Trojan Assessment Profile, the university collected general education results via a Qualtrics survey. Below are prior results from that process:

DSU General Education Program SLO Results System Graduation Requirement (Written Communication)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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SGR #5. Students will understand and apply fundamental mathematical processes and reasoning.

- Interpretation of findings: Feedback from Academic Assessment Coordinating Committee--- Faculty gathered assessment measures later in the class which was a good way to avoid assessing those students who would later drop the course. It was a good idea to have every faculty member submit results from one course that was selected by the lead. This allows for a range of courses to be assessed rather than one selected by each faculty member.

Samples of faculty conclusions from DSU's Trojan Assessment Profile:

- 83% of students that submitted work were proficient. A homework problem with an application of rational functions was used for the assessment. These types of problems were emphasized in the course. Students are able to recreate a similar problem when given time to complete it during a homework assignment.
 - Seventy-five percent of the students understood the expectation for solving specific types of real-world problems. The two below proficiency did the minimum and were not thorough in showing work. The five students not included in the results did not submit the assignment.
 - Decent use of appropriate mathematical notation.
 - Most students in Math 123 understand the process of optimization problems.
 - Given the success of active-learning and inquiry-based activities, I plan to continue making these types of activities central to the student learning experience in my intro to Discrete Mathematics courses. In particular, I have found tremendous success pairing inquiry-based activities with Sage Math.
 - My students showed master of congruency through completing an application problem.
 - Students are resistant to writing in math courses. Emphasis on writing complete sentences and proper labeling of variables is important, and it will be more strongly emphasized in future classes.
 - Most students communicated their solutions at the appropriate level.
 - Students in Math 123 are still learning how to use mathematical theorems. Explanations of the process can be difficult as students are learning. In the future more emphasis on the important of mathematical theorems. Students should also be expected to explain their process throughout the class.
 - My students were able to complete a clear logical argument through the use of definitions and algebra.
- Comparison of findings to prior ratings periods; trends in students' achievement of the learning outcome over time:
 - Prior to DSU' implementation of its Trojan Assessment Profile, the university collected general education results via a Qualtrics survey. Below are prior results from that process:

DSU General Education Program System Graduation Requirement (SGR #5) MATH																				
Performance by Proficiency Level																				
Results exclude students with no valid work to score and/or students omitted for other reasons.																				
BOR Learning Outcome	BOR Goal Area	Student Learning Outcomes (SLOs)	Spring Term 2018				Fall Term 2018				Spring Term 2019				Fall Term 2019 (16/17 Sections Reported)				SLO Met or Exceeded Cumulative Average	
			2018SP Below Proficient Faculty Reported Student N	2018SP Proficient Faculty Reported Student N	2018SP Exemplary Faculty Reported Student N	% Who Met or Exceeded SLO Proficiency	2018FA Below Proficient Faculty Reported Student N	2018FA Proficient Faculty Reported Student N	2018FA Exemplary Faculty Reported Student N	% Who Met or Exceeded SLO Proficiency	2019SP Below Proficient Faculty Reported Student N	2019SP Proficient Faculty Reported Student N	2019SP Exemplary Faculty Reported Student N	% Who Met or Exceeded SLO Proficiency	2019FA Below Proficient Faculty Reported Student N	2019FA Proficient Faculty Reported Student N	2019FA Exemplary Faculty Reported Student N	% Who Met or Exceeded SLO Proficiency		
1	Math	Students will use mathematical symbols and mathematical structure to model and solve real-world problems.	26	45	32	75%	64	125	121	79%	79	158	145	79%	93	178	61	49	63%	74%
2	Math	Students will demonstrate appropriate communication skills related to mathematical terms and concepts.	26	45	32	75%	61	146	114	81%	68	154	162	82%	91	172	67	50	63%	75%
Report Source: Graduate Analytics, Spring 2020, Last Modified: 3/31/2020																				

data collection in 2020-2021. DSU faculty teaching general education courses started collecting results comparing online sections with face-to-face sections in the 2021-2022 academic year.

Section 4. Plans for Continuous Improvement

SGR #1. Students will write effectively and responsibly and will understand and interpret the written expression of others.

- Opportunities for Improvement: The department evaluated class sizes and determined they were larger than other regental Composition I and II classes and as a result are seeking to align courses with regental norms, best practices based on composition scholarship, and recommendations of national standards.
- Areas of Strength: The department was impressed by the data given this was a COVID year (2020-2021). Patterns at this moment are difficult to ascertain until we have more data. The department decided that there would be no changes to cut scores.

SGR #5. Students will understand and apply fundamental mathematical processes and reasoning.

- Opportunities for Improvement: The percentage of students that were not assessed was 14.5% and 19.2% for each outcome, respectively. Reducing this percentage and assessing all students is important to get a proper understanding of student achievement of learning outcomes. It is possible the chosen assessment tools contribute to these numbers and instructors may want to consider changing the tools as a means of increasing these percentages. DSU offers math tutors for general education math courses and supplemental instruction for select sections of courses. However, the number of students that take advantage of these opportunities is low. The faculty need to investigate ways to encourage students to take advantage of tutoring and supplemental instruction opportunities (as well as attending instructor's office hours).
- Areas of Strength: Students were very close to reaching the 70% benchmark for using Mathematical Symbols and Problem Solving (69.9%). The math faculty each take assessment seriously and wish to draw meaningful conclusions from the data that is collected. The faculty take these assessments as an opportunity to reflect on pedagogy and student learning with an eye towards improvement.

Section 5. Summary

SGR #1. Students will write effectively and responsibly and will understand and interpret the written expression of others.

In each of the four general education English learning outcomes, the Dakota State University students assessed and reported during the 2020-2021 academic year met or exceeded the faculty-determined benchmark of 70% proficiency. Faculty teaching general education English courses will continue to refine assessments aligned with learning outcomes, make adjustments in pedagogy to meet students' needs, and analyze multiple semesters of learning outcomes results to inform decision making. The DSU Writing Center provides reading and writing support to students both on-campus and online across a variety of disciplines via one-on-one consultations, individualized assistance, and group workshops. <https://dsu.edu/academics/academic-support-advising/writing-center.html>

SGR #5. Students will understand and apply fundamental mathematical processes and reasoning.

In each of the two general education math learning outcomes, Dakota State University students assessed and reported during the 2020-2021 academic year did not meet or exceed the faculty-determined benchmark of 70% proficiency. Faculty teaching general education math courses will continue to refine assessments aligned with learning outcomes, make adjustments in pedagogy to meet students' needs, and analyze multiple semesters of learning outcomes results to inform decision making. DSU offers on-campus and online tutoring for students needing extra assistance in math, services they can access through TrojanConnect <https://dsu.edu/academics/academic-support-advising/tutoring.html>. DSU's math department offered supplemental instruction for selected courses.

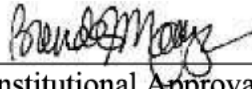



SOUTH DAKOTA BOARD OF REGENTS ACADEMIC AFFAIRS FORMS

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Northern State University	2020-21	
Institution	Academic Year Reporting Period	
Brenda Mammenga		7/20/2022
Assessment Representative	Institutional Approval Signature	Date
Michael Wanous		7/20/2022
Provost	Provost Approval Signature	Date

Section 1. Introduction

During 2020-21, Northern State University faculty assessed student learning related to General Education Goals 1 and 5. Per BOR Policy 2.11, Goal 1 is stated as: Students will write effectively and responsibly and will understand and interpret the written expression of others. Goal 5 is: Students will understand and apply fundamental mathematical processes and reasoning.

Section 2: Goals Assessed

Goal Assessed: Goal 1

Methodology: Instructors of ten course sections of ENGL-201 designed assignments that prompted students to demonstrate their abilities related to each of the four learning outcomes included in Goal 1; 165 students participated. Assignments generally took place towards the end of the semester, and these assignments were mostly research papers. Upon collecting the student work submitted, instructors assessed student performance against the BOR-established rubric for each outcome. Faculty summarized results and shared them with the Office of Institutional Research and Assessment, where office staff aggregated and disaggregated those results to report on student learning for the whole campus.

Level of Achievement/Learning Outcome: For each learning outcome, faculty used three levels of proficiency for student ratings: Exemplary, Proficient, and Below Proficient. The percentage of students per proficiency category and learning outcome are displayed in the following table.

Goal 1 Assessment Results	Exemplary	Proficient	Below Proficient
Learning Outcome 1 (Mechanics, Grammar, and Syntax): Write using standard American English, including correct punctuation, grammar, and sentence structure.	47%	33%	19%
Learning Outcome 2 (Logical Development): Write logically.	46%	39%	15%
Learning Outcome 3 (Persuasion): Write persuasively, using a variety of rhetorical strategies (e.g., exposition, argumentation, description).	44%	44%	12%
Learning Outcome 4 (Research and Documentation): Incorporate formal research and documentation into their writing, including research obtained through modern, technology-based research tools.	32%	39%	29%

Goal Assessed: Goal 5

Methodology: Instructors of 19 course sections among the courses of MATH-103, MATH-114, MATH-120, MATH-123, MATH-125, and MATH-225 participated in the assessment process. They designed assignments that prompted students to demonstrate their abilities related to each learning outcome included in Goal 5; 220 students participated. The types of assignments used for the assessment process included mid-course exams, final exams, homework assignments, and projects; these were generally timed near the end of the semester. Upon collecting the student work submitted, instructors assessed student performance against the BOR-established rubric for each outcome. Faculty summarized the results and shared them with the Office of Institutional Research and Assessment, where office staff aggregated and disaggregated those results to report on student learning for the whole campus.

Level of Achievement/Learning Outcome: For each learning outcome, two levels of proficiency were used for student ratings: Proficient and Below Proficient. The percentage of students per proficiency category and learning outcome are displayed in the following table.

Goal 5 Assessment Results	Proficient	Below Proficient
Learning Outcome 1: Students will use mathematical symbols and mathematical structure to model and solve real world problems.	65%	35%
Learning Outcome 2: Students will demonstrate appropriate communication skills related to mathematical terms and concepts.	65%	35%

Section 3. Findings

Goal Assessed: Goal 1

Interpretation of Findings: The percentage of students being rated as proficient or better at Learning Outcome 4 is the lowest among the four outcomes (71% compared with 80%, 85%, and 88%). This holds true even when the results are disaggregated per term and per delivery method (online versus face-to-face). Thus, it is reasonable to conclude that student performance related to Learning Outcome 4 is poorest among the four learning outcomes for Goal 1. Faculty noted that this outcome requires both appropriate use *and* documentation of students' research efforts exerted for the writing assignment, so lower proficiency ratings are not surprising. Faculty also conjectured that the varying documentation styles used in classes across campus (i.e., APA, MLA, Chicago, etc.) could be confusing for ENGL-201 students.

No consistent patterns emerge when comparing online versus face-to-face formats, or accounting for fall semester versus spring semester. The consensus among faculty is that this indicates consistency in student learning across delivery methods and semesters.

Comparison of Findings from Prior Period: When Goal 1 was last assessed in 2017-18, 65% of students were deemed Proficient or Exemplary at Learning Outcome 1, 84% at Outcome 2, 78% at Outcome 3, and 70% at Outcome 4. Thus, it was Outcome 1 that showed the poorest results three years ago, rather than Outcome 4 this year. Even though this year's proficiency rate for Outcome 4 is lower than the other three outcomes, it is consistent with the Outcome 4 results captured in the 2017-18 assessment report (70%). So rather than dwelling on Outcome 4, it seems more appropriate to focus on the large increase in the percentage of students proficient at Outcome 1 between these two assessment cycles: 65% in 2017-18 and 80% in 2020-21. Faculty conjectured that the decrease in international students from 2017-18 to 2020-21 is a likely explanation for improved proficiency rates for Outcome 1. Indeed, it is to be expected that students whose primary language is not English would struggle more often with mechanics and grammar than the rest of the student population.

We are unable to compare the disaggregated results of 2020-21 with those of 2017-18 because of the limited information collected in 2017-18. In particular, assessment results from three years ago are only available from two online sections and six face-to-face sections, all taking place in the spring semester. It is inappropriate to draw conclusions from such small datasets.

Goal Assessed: Goal 5

Interpretation of Findings: The percentage of students being rated as "proficient" at Learning Outcome 1 is identical to the percentage for Outcome 2. However, when the results are disaggregated per term and per delivery method, the percentages do vary a bit, but the differences only ranged between two and seven percentage points. Thus, it is reasonable to conclude that student performance is similar between the two outcomes.

It appears that higher rates of proficiency were demonstrated in fall semester classes than those in the spring. Also, online sections reported higher rates of proficiency than those taking place in a face-to-face environment. It should be noted that 65% of students were in Fall 2020 classes and 59% of students were in face-to-face classes. The table below compares the proficiency rates for these class categories.

Goal 5 Assessment Results	Proficient	Below Proficient
Learning Outcome 1	65%	35%
<i>By term:</i>		
Fall 2020	73%	27%
Spring 2021	51%	49%
<i>By delivery method:</i>		
Face-to-face	63%	37%
Online	69%	31%
Learning Outcome 2	65%	35%
<i>By term:</i>		
Fall 2020	75%	25%
Spring 2021	47%	53%
<i>By delivery method:</i>		
Face-to-face	58%	42%
Online	76%	24%

Faculty were not surprised by these observations and suggested that differences in the student populations per class category could explain the differences. First, online sections have higher percentages of high school dual credit students than face-to-face sections, and those high school students typically perform better academically than traditional college students due to academic requirements for taking dual credit courses. This would likely explain the higher proficiency levels in online sections. Second, turning to the better performance in fall sections compared with spring, students have to delay taking MATH-114 until the spring when they first need to complete remedial coursework. It is also common for students who are apprehensive about taking math classes to delay enrollment. Finally, students who are not pursuing a math-intensive degree program may not find it necessary to fulfill their math general education requirement right away, and those students may have weaker math skills in general. All of these scenarios may impact the academic profile (related to mathematics) of students enrolled in the spring semester.

Comparison of Findings from Prior Period: When Goal 5 was last assessed in 2017-18, three proficiency categories were used: Below Proficient, Proficient, and Exemplary. Since the assessment process in 2020-21 uses only the Below Proficient and Proficient categories, we can't be sure that the elimination of the Exemplary category didn't have an effect on faculty proficiency ratings. Taking all of that into consideration, it is still useful to compare this year's results with those collected in 2017-18. Three years ago, 75% of students were deemed Proficient or Exemplary at Outcome 1, and 73% at Outcome 2. Thus, the 2020-21 results (65% proficient for each outcome) show a decrease in students achieving a proficient level towards each outcome.

The most obvious explanation for the lower proficiency ratings is the COVID-19 pandemic. First, student attendance during Fall 2020 and Spring 2021 semesters suffered due to quarantine and isolation policies implemented campus-wide. Second, protocols intended to prevent the spread of the virus disrupted the typical support system used by Northern's math department such as tutoring, office hours, group study sessions, and other collaborative learning environments. And third, students who were relying on their math coursework from the spring semester of 2020 as preparation for their mathematical progression at Northern might have found gaps in that baseline knowledge due to high schools closing in March 2020, impacting student learning in those classes.

Section 4. Plans for Continuous Improvement

Goal Assessed: Goal 1

To improve student learning towards Learning Outcome 4, English faculty first speculated that students' struggles related to Outcome 4 are more related to documentation errors than poor research skills themselves. Faculty suggested taking a repetitive approach to the subject matter of the MLA style guide. It was their view that students would become more capable of accurately documenting sources used in their writing if they practiced that skill early and often in their ENGL-201 class.

Currently, there is interest in exploring a Writing Across the Curriculum (WAC) program at Northern; campus-wide meetings related to this initiative began in the Fall 2021 semester. The faculty of Goal 1 courses viewed this as a positive development. Even though some students may take WAC-associated classes after ENGL-201 (and therefore not necessarily impact proficiency rates toward Goal 1 learning outcomes), the writing abilities of Northern's students are likely to improve en masse by requiring more writing-intensive courses.

Goal Assessed: Goal 5

When discussing the 2020-21 assessment results with the Director of Institutional Research & Assessment, the math faculty noted some confusion about how to handle students who do not submit work that is used for assessment. The director made note of this issue and will update the instructions to be more clear in future years.

It is important that Northern's E-learning and Rising Scholars sections are included in the next cycle of general education assessment. If student learning varies between these types of course sections, then that is critical information to know. Assessment data will give us the ability to check for differences between these types of course sections, just like this report compared online and face-to-face sections. The director will be responsible for informing the instructors of E-learning and Rising Scholars sections of the assessment expectations in the next cycle for Goal 5 (2023-24).

As of the Fall 2021 semester, the mathematics course offerings no longer included MATH-114L, a lab course that accompanied some on-campus sections of MATH-114. The rationale for this change is that students will instead have access to that sort of learning experience via improved tutoring services. The next cycle of Goal 5 assessment will give us an opportunity to evaluate whether this change had a significant impact (either positive or negative) on student learning within the mathematics general education program.

Section 5. Summary

The 2020-21 academic year was the second cycle of general education assessment for Goals 1 and 5 under the current guidelines, and faculty showed an understanding of the process and purpose of assessing student learning. The observed proficiency rates were generally satisfactory across all learning outcomes, although there are areas for improvement. Upon having a group discussion about

the assessment results described in this report, faculty made suggestions that were meaningful and feasible for improving student learning.

Starting in the Fall 2021 semester, instructors began using D2L, Northern's learning management software, to record student proficiency ratings for each general education learning outcome. There are two benefits to this change. First, faculty will likely find this process less time-consuming and error-prone, as it eliminates the need for their own data storage system (even if that was as simple as a computer spreadsheet). Second, the results are now available for more sophisticated data analysis, since the student proficiency ratings will be associated with reliable student identifier information. Thus, the Office of Institutional Research and Assessment may tie in student characteristics captured in Northern's student information system, disaggregate by those characteristics, and then look for patterns in the assessment results.



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South Dakota Mines	AY 2020-2021	
Institution	Academic Year Reporting Period	
Darcy Briggs	Darcy Briggs	9.9.2022
Assessment Representative	Institutional Approval Signature	Date
Lance Roberts	Lance Roberts	9.9.2022
Provost	Provost Approval Signature	Date

Section 1. Introduction

Higher education experienced tremendous disruption in AY 2020/2021, and South Dakota Mines, as an institution rooted in highly interactive in-person instruction, was heavily impacted by the disruptions of that unprecedented time. Some of the more significant challenges and changes encountered by the institution include:

- Abrupt pivot from traditional in-person instruction, to online instruction
- With no Center for Effective Teaching and Learning (CETL) at the institution and an Office of Faculty Development in its first year of existence, three staff members voluntarily quickly developed a “Teaching Online 101” course to help faculty at the institution transition to online teaching
 - o 90+ faculty voluntarily enrolled in the “Teaching Online 101” course
- A new Department Head was hired to lead the Mathematics department
- The Mathematics department completely revamped the Mathematics (BS) degree following a thorough review of the curriculum
 - o This significant program modification also entailed the work to develop completely new Student Learning/Program Outcomes for the degree
 - o While program outcomes are distinct from General Education outcomes, for a field like mathematics, there is the potential for significant overlap between the two and a great deal of time was needed to fully explore what that appropriate overlap should be
- The Associate Vice Provost for Academic Affairs, the position leading assessment efforts at the institution, announced their retirement
- The decision by SD Board of Regents staff to discontinue Summer Summits after Summer, 2019

In the midst of all that change, general education assessment still happened at South Dakota Mines. While not a perfect process, it did lead to a very positive outcome; a review and analysis of information, and the identification of opportunities for continuous improvement.

Section 2: Goals Assessed

Goal Assessed: *Goal 1 – Written Communication*

Methodology:

South Dakota Mines offers a limited selection of courses that meet the Goal 1 requirement. While there are few courses from which to select, each course typically has very strong enrollment. As such, several sections of ENGL 101: Composition I provided adequate numbers of students and faculty for an effective assessment process.

Two artifacts were identified in each section selected; one artifact produced early in the course and the second artifact was produced later in the course.

Level of Achievement/Learning Outcome:

	Earlier artifacts	Later artifacts
Outcome 1 – Below Proficient	13	6
Outcome 1 – Proficient	27	30
Outcome 1 – Excellent	22	26
	Earlier artifacts	Later artifacts
Outcome 2 – Below Proficient	22	10
Outcome 2 – Proficient	24	31
Outcome 2 – Excellent	16	21
	Earlier artifacts	Later artifacts
Outcome 3 – Below Proficient	20	9
Outcome 3 – Proficient	28	33
Outcome 3 – Excellent	14	20
	Earlier artifacts	Later artifacts
Outcome 4 – Below Proficient	22	9
Outcome 4 – Proficient	26	33
Outcome 4 – Excellent	12	20

Goal Assessed: *Goal 5 – Mathematics*

Methodology:

As referenced in the introduction, hiring a new Department Head, a complete overhaul of the Mathematics (BS) degree requirements, and the creation of program outcomes (which includes a consideration of general education outcomes) significantly impacted the general education assessment activities for mathematics.

As such, for this one assessment period, the Fundamentals of Engineering (FE) exam is being utilized as a proxy assessment artifact. The FE exam is a national standardized exam that is given to students in engineering programs that contains a specific section testing for “Mathematics and Statistics” knowledge. As a national standardized exam, comparison is available between institutional performance and a national average, both at the overall exam score level as well as at the individual section level.

Level of Achievement/Learning Outcome:

Exam Population	South Dakota Mines Average	ABET Comparison Average
Spring 2021 – Enrolled FE	9.3	9.5

Section 3. Findings

Goal Assessed: Goal 1 – Written Communication

Interpretation of Findings:

Overall, the analysis of the artifacts indicated that students performed better on the later artifact than on the earlier artifact. This is positive and reflects that student learning was improving as reflected in the increased numbers of students at “Proficient” and “Excellent” levels.

One important discrepancy that appeared in assessment data was the drop-out rate between the earlier and later sets of artifacts reported by instructors. That is due to the high levels of student attrition during the FA20-SP21 school year, characterized by the COVID-19 pandemic and a shift in instructional delivery. One instructor described a roughly one-quarter drop-off rate between the earlier and later forms of these artifacts. It remains impossible to provide, therefore, a detailed quantitative analysis with the open question of whether this drop-out rate can be factored out of analysis, or whether it provides an important detail for evaluating instruction.

To ensure consistency in data comparison between the two artifacts, students who dropped the course after the earlier artifact was collected were removed from the counts.

Comparison of Findings from Prior Period:

Comparison from prior period is not possible, due to transition from CAAP.

Goal Assessed: Goal 5 – Mathematics

Interpretation of Findings:

South Dakota Mines students performed just slightly lower than the national average on the Mathematics & Statistics portion of the FE exam.

Comparison of Findings from Prior Period:

Comparison from prior period is not possible, due to transition from CAAP.

Section 4. Plans for Continuous Improvement

Goal Assessed: Goal 1 – Written Communication

Written Communication instructors at SD Mines have reviewed the data from the assessment results. The faculty will remain in contact with their relevant disciplinary communities, both concerning research and pedagogy, and will follow best practices in their fields to meet the established student learning outcomes.

Goal Assessed: Goal 5 – Mathematics

The Mathematics department completed the work to establish appropriate student learning/program outcomes for the revamped Mathematics (BS) degree. This work included the creation of an assessment plan and map, and the identification of artifacts and a schedule for collection and analysis. This new assessment model will be implemented in AY23/24 when Mathematics is one of the General Education goals assessed.

Section 5. Summary

South Dakota Mines has implemented several changes to strengthen general education assessment moving forward. A General Education Assessment committee was established in Fall, 2021 that contains membership from the Provost's Office and each academic department at the institution that has general education courses. Through the work of that committee, an updated assessment process was created and documented, a timeline was created, a central repository for data and information was established, and new forms were developed and utilized. These changes were developed and implemented for the AY21/22 general education assessment cycle, and they yielded positive results.

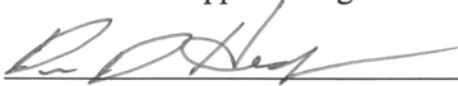


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<u>South Dakota State University</u>	<u>2020-21</u>	
Institution	Academic Year Reporting Period	
<u>Jana Hanson</u>		
Assessment Representative	Institutional Approval Signature	Date
<u>Dennis Hedge</u>		<u>8-3-2022</u>
Provost	Provost Approval Signature	Date

Section 1. Introduction

The South Dakota State University General Education Assessment Plan outlines the purpose, principles, and processes which guide the assessment of student learning identified by the System General Education goals and student learning outcomes.

The goal of general education assessment is to determine how well and in what ways students are achieving the intended learning outcomes. In addition, the assessment process can provide meaningful information and feedback for faculty who teach general education courses. Most important, general education assessment identifies successes of student learning, areas for improvement, and documentation of evidence-based changes.

Good assessment practices encourage the use of multiple methods to examine student learning outcomes. SDSU's general education assessment plan incorporates multiple methods to assess student learning as related to the general education curriculum. These methods include:

1. Review of student artifacts from randomly selected general education courses/sections
2. Items from the Senior Exit Survey
3. Items from the National Survey of Student Engagement
4. Focus Groups (optional)

Section 2: Goals Assessed

Goal Assessed: SGR #1

Methodology:

Following the SDSU Section and Artifact Sampling procedure (see General Education Assessment Plan), a sample of approximately 25% of the available courses on the approved list was selected by the Director of Institutional Assessment.

For the 2020-21 cycle, the following course has been selected for Goal #1:

- ENGL 283 (Introduction to Creative Writing)

Level of Achievement/Learning Outcome:

Written Communication included 2 course sections from ENGL 283 with a total of 39 scored student artifacts.

The artifacts were scored by each student learning outcome (SLO). The results for SLO 1 (n = 39) were 9 (23%) artifacts rated as below proficient, 15 (38.5%) rated as proficient, and 15 (38.5%) rated as exemplary. The results for SLO 2 (n = 39) were 7 (17.9%) artifacts rated as below proficient, 14 (35.9%) rated as proficient, and 18 (46.2%) rated as exemplary. The results for SLO 3 (n = 39) were 6 (15.4%) artifacts rated as below proficient, 16 (41.0%) rated as proficient, and 17 (43.6%) rated as exemplary. The results for SLO 4 (n = 39) were 7 (17.9%) artifacts rated as below proficient, 15 (77.6%) rated as proficient, and 17 (43.6%) rated as exemplary. The results for SLO 5 (n = 39) were 15 (38.5%) artifacts rated as below proficient, 14 (35.9%) rated as proficient, and 10 (25.6%) rated as exemplary.

Goal Assessed: SGR #5

Methodology:

Following the SDSU Section and Artifact Sampling procedure (see General Education Assessment Plan), a sample of approximately 25% of the available courses on the approved list was selected by the Director of Institutional Assessment.

For the 2020-21 cycle, the following courses have been selected for Goal #5:

- MATH 103 (Mathematical Reasoning)
- MATH 125 (Calculus II)

Level of Achievement/Learning Outcome:

Mathematics included 3 course sections from MATH 103 and 6 course sections from MATH 125 with a total of 290 scored student artifacts for SLO 1 and 265 scored student artifacts for SLO 2.

The results for SLO 1 (n = 290) were 92 (31.7%) artifacts rated as below proficient and 198 (68.3%) rated as proficient. The results for SLO 2 (n = 265) were 55 (20.8%) artifacts rated as below proficient and 265 (79.2%) rated as proficient.

Section 3. Findings

Goal Assessed:

Interpretation of Findings: SGR 1

The results indicate that students performed at or above the benchmark for SGR Goal #1 (Written Communication) for SLOs 1, 2, 3, and 4. However, only 61.5% of students were proficient or exemplary for SLO 5.

Comparison of Findings from Prior Period: N/A

Goal Assessed:

Interpretation of Findings:

The results indicate that students performed at or above the benchmark for SGR Goal #5 (Mathematics) for SLO 2. However, only 68.3% of students were proficient or exemplary for SLO 1.

Comparison of Findings from Prior Period: N/A

Section 4. Plans for Continuous Improvement

Goal Assessed: SGR #1

The faculty and departments that teach courses for SGR #1 will use the information in this report to improve student learning (and instructor pedagogical practices) in the following ways:

- Faculty indicated the need to redesign the research and documentation component of the course by modifying course assignments, adding a portfolio checklist, adding additional examples, and highlighting the research process throughout the semester.

Goal Assessed: SGR #5

The faculty and departments that teach courses for SGR #5 will use the information in this report to improve student learning (and instructor pedagogical practices) in the following ways:

- Faculty noted that SLO 1 is a more difficult concept for students and they will work to make it more concrete and make better connections
 - For example, one faculty is working on new activities to help students better understand difference in formulas.
- Other faculty indicated a need for a stronger incentive to help students better prepare for the final exam and re-exam the grading policy.
- For fully online sections, one faculty member is working on more effective student engagement.

Section 5. Summary

Overall, a few ways to improve the overall general education assessment process have been identified. Those included:

- The revision of rubrics and writing clearer outcomes and discriminating better between performance levels.
- Provide guidelines and suggestions for good practices for incorporating the rubric and selecting artifacts that align with the rubric and SLOs.
- Provide additional training on scoring artifacts using the rubric.
- Provide professional development opportunities specifically for faculty (especially new faculty) who teach general education courses.



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<u>University of South Dakota</u>	<u>2020-2021</u>	
Institution	Academic Year Reporting Period	
<u>Lisa K. Bonneau, Ph.D.</u>		<u>7-27-2022</u>
Assessment Representative	Institutional Approval Signature	Date
<u>Kurt Hackemer, Ph.D.</u>		<u>7-27-2022</u>
Provost	Provost Approval Signature	Date

Section 1. Introduction

General Education is an academic program that provides students with a foundation of knowledge and skills to prepare them for success. General education requirements in South Dakota are outlined in SDBOR Policies 2:7, 2:11, and 2:26, and AAC Guidelines 8.3, 8.4, and 8.7. Faculty members in each discipline from all six BOR universities meet to review the goals and learning outcomes and create rubrics to evaluate the degree to which students meet the stated student learning outcomes for the given goal.

The two System General Education Goals and Student Learning Outcomes assessed this year are: Goal #1: Students will write effectively and responsibility and will understand and interpret the written expression of others and Goal #5: Students will understand and apply fundamental mathematical processes and reasoning.

Section 2: Goals Assessed

Goal Assessed: Goal 1 Written Communication

Methodology: In early August, a complete list of all course sections for courses that meet the general education goals was compiled for the 2020/21 academic year. The campus Assessment Committee had asked for as many sections as possible to be included in the sample for this academic year rather than a random sample of courses and sections so more courses and section types could be included in the analysis. Faculty in Arts & Sciences sections were notified before the beginning of the semester and provided with the student learning outcomes for the goal, information on artifact selection, the approved rubrics, and the data submission sheet. Results were submitted to the Assistant Provost by the end of the semester.

Level of Achievement/Learning Outcome:

Fall

SLO 1: 8% Below Proficient, 68 % Proficient, 24% Exemplary (92% Proficient or Above)
 SLO 2: 8% Below Proficient, 56% Proficient, 36% Exemplary (92% Proficient or Above)
 SLO 3: 9% Below Proficient, 54% Proficient, 37% Exemplary (91% Proficient or Above)
 SLO 4: 11% Below Proficient, 58% Proficient, 31% Exemplary (89% Proficient or Above)

Spring

SLO 1: 9% Below Proficient, 62 % Proficient, 29% Exemplary (91% Proficient or Above)
 SLO 2: 8% Below Proficient, 62% Proficient, 30% Exemplary (92% Proficient or Above)
 SLO 3: 8% Below Proficient, 62% Proficient, 30% Exemplary (92% Proficient or Above)
 SLO 4: 10% Below Proficient, 59% Proficient, 31% Exemplary (90% Proficient or Above)

Goal Assessed: Goal 5 Mathematical Process and Reasoning

Methodology: In early August, a complete list of all course sections for courses that meet the general education goals was compiled for the 2020/21 academic year. The campus Assessment Committee had asked for as many sections as possible to be included in the sample for this academic year rather than a random sample of courses and sections so more courses and section types could be included in the analysis. Faculty in Arts & Sciences sections were notified before the beginning of the semester and provided with the student learning outcomes for the goal, information on artifact selection, the approved rubrics, and the data submission sheet. Results were submitted to the Assistant Provost by the end of the semester.

Level of Achievement/Learning Outcome:**Fall**

SLO 1: 14% No Valid Work, 19% Below Proficient, 67% Proficient
 SLO 2: 15% No Valid Work, 25% Below Proficient, 60% Proficient

Spring

SLO 1: 13% No Valid Work, 27% Below Proficient, 60% Proficient
 SLO 2: 14% No Valid Work, 32% Below Proficient, 54% Proficient

Section 3. Findings**Goal Assessed: Goal 1 Communication**

Interpretation of Findings: Students are doing well meeting the learning outcomes of this goal. No benchmarks were set for comparison as they were not required with either the SDBOR or campus level assessment process during this particular goal review year. Provided assessment methodology doesn't change for the next cycle for this goal there will be an ability to monitor trends in assessment results across years.

Comparison of Findings from Prior Period: Direct comparison to results from 2017-18 are not appropriate at this time, though the percentages were similar (84% for SLO 1, 88% for SLO 2, for 84% SLO 3, and for 78% SLO 4). In 2017-18, the sampling strategy was a random sample, with only 259 student artifacts evaluated, while the current cycle assessed all course sections, with 1,025 student artifacts in the fall and 467 student artifacts in the spring.

Goal Assessed: Goal 5 Mathematical Process and Reasoning

Interpretation of Findings: Spring results are typically lower than fall and the results are not surprising. Some reasons for this include the following: spring students didn't place directly into these courses (rather, they started in a remedial course before MATH 114 and 103) so they started behind the fall cohort in ability; many spring students failed the first semester and were repeating the course so were likely not as strong as the fall cohort even with the extra semester; and, some put off math the first semester so they have less affinity for math and/or may have forgotten more with the extra semester away from math.

When comparing between locations and delivery, Sioux Falls had higher values in both fall and spring. Typically, students at USDSF have lower success rates in individual classes. However, we also teach some dual credit students in the SF public school system who have extremely high success rates compared to all of the other sections, as they are the highly motivated high school students. It seems these two populations were combined and the high number of dual credit students overwhelmed the lower number of USDSF students to end up with the higher results in the assessment. Results should be separated in any future reviews.

Comparison of Findings from Prior Period: Direct comparison to results from 2017-18 are not appropriate at this time, though the percentages were similar (63% for SLO 1, and 68% for SLO 2). In 2017-18, the sampling strategy was a random sample, with only 260 student artifacts evaluated, while the current cycle assessed all course sections with 1,045 student artifacts for the fall and 438 for the spring. For this assessment cycle, the rubric had three levels of proficiency with only two levels of proficiency and one level for blank or unrelated work.

Section 4. Plans for Continuous Improvement

Goal Assessed: Goal 1 Written Communication

Faculty mentioned the following as methods to improve success in meeting the learning outcomes in courses meeting this goal.

- Better ensure that the designed an assignment and rubric more specifically aligns with the assessment criteria, especially in creative writing assignments that do not perfectly fit with rhetorical assessment goals.
- Add additional work with research and documentation in order to more comprehensively assess students' research skills, which remain uneven.
- Create more interactive assignments to encourage student engagement in the class.
- Provide additional practice in conducting database research and greater exposure to subject-specific databases.
- Suggest adjusting BOR policy to allow students to take 033 (Basic Writing) AND 101+ (Composition with Basic Writing) so that students who struggle with English can still have that extra support.
- Provide additional opportunities to address the importance of grammar, persuasion, and citation.
- Writing flourishes with one-on-one instruction and feedback, and students' writing inevitably improves with this type of attention and collaboration, which is incredibly time consuming. Smaller class sizes for writing-intensive courses would undoubtedly improve the quality and aptitude of student writing.

Goal Assessed: Goal 5 Mathematical Process and Reasoning

Faculty mentioned the following as methods to improve success in meeting the learning outcomes in courses meeting this goal.

- Better selection of artifacts to use for the assessment process
- Incorporate more writing activities that help students to write and communicate mathematically and provide more questions that require students show their work since the lack of showing of work affected student performance
- Incorporate more applied problems to help make real world connections
- Incorporate assessment to a graded assignment rather than an extra credit assignment
- When assessing this particular SGR, it is important to examine both SLOs together. Students may be good at performing calculations, using mathematical symbols, and modeling a particular situation, but this may be because they have seen similar problems in the past. These same students may not have a great understanding of the underlying concepts, which could be demonstrated by their lack of ability to communicate effectively the ideas underlying their calculations and models. On the other hand, some students might understand the underlying concepts and can communicate those ideas, but struggle with the calculations and the manipulation of symbols. For these reasons, it is important to consider both SLOs together when assessing this general education SGR.

Section 5. Summary

Faculty teaching courses in the Writing Program are required first and foremost to follow the guidelines provided in the English department's Course Instructor's Guides established for each of the courses meeting SGR#1. These guidelines are based on BOR policies, System General Requirements, and the relevant Student Learning Outcomes. The English department's Course Instructor's Guides include a wealth of information including sections on: course materials and textbooks, required and suggested writing assignments, required course policies, academic integrity guidelines, grammar instruction, individual conferences, instructor and peer feedback, grading guidelines, information literacy and library instruction, and numerous other areas of attention. In addition to providing these materials, all Writing Program courses in the Department of English are overseen by the Director of Writing and the Chair of the department. Support for attending pedagogical training and numerous pedagogy workshops are provided through the department.

The Department of Mathematical Sciences monitors very closely the success rates in their entry level math courses, especially the Math 103 and Math 114 which typically have high enrollments and also struggle with the DFW rates. Course coordinators of these sections and the department chair meet at the end of every semester to discuss changes to the course and make adjustments that are needed to help students be more proactive in their learning and remove any unneeded obstacles for their success.