

# ASSESSMENT OF STUDENT LEARNING OUTCOMES IN GENERAL EDUCATION

## SUMMARY REPORT

Name of Institution: **BROCKPORT** Academic Year: 2018-2019

Knowledge and Skills Areas / Competencies	Learning Outcomes	Information		Results <sup>1</sup>			
		Date of Assessment Semester/Year <sup>2</sup>	# Students Assessed	% Exceeding Standards	% Meeting Standards	% Approaching Standards	% Not Meeting Standards
Mathematics	Interpret and draw inferences from mathematical models such as formulas, graphs, tables, and schematics.	Fall 2018	206	20%	38%	23%	18%
	Represent mathematical information symbolically, visually, numerically and verbally	Fall 2018	206	28%	34%	28%	10%
	Employ quantitative methods such as arithmetic, algebra, geometry, or statistics to solve problems	Fall 2018	206	37%	39%	14%	10%
	Estimate and check mathematical results for reasonableness	Fall 2018	206	39%	30%	17%	11%
	Recognize the limits of mathematical and statistical methods	Fall 2018	206	35%	33%	11%	21%
Basic (Written) Communication	Produce coherent texts within common college-level written forms						
	Demonstrate the ability to revise and improve such texts						
	Research a topic, develop an argument, and organize supporting details						
Oral Communication	Develop proficiency in oral discourse	Fall 2018	138	18.8%	63%	17.4%	.7%
	Evaluate an oral presentation according to established criteria**	Fall 2018	138	34.6%	30.7%	26.8%	7.9%
Critical Thinking (Reasoning)	Identify, analyze, and evaluate arguments as they occur in their own or other's work						
	Develop well-reasoned arguments***						
Natural Sciences	Understanding of the methods scientists use to explore natural phenomena, including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical analysis						
	Application of scientific data, concepts, and models in one of the natural sciences						

<sup>1</sup> Each student should be counted only once and the four percentages should total 100%.

<sup>2</sup> Enter the previous date, the current date or the planned date, whichever is appropriate.

Knowledge and Skills Areas / Competencies	Learning Outcomes	Information		Results <sup>1</sup>			
		Date of Assessment Semester/Year <sup>2</sup>	# Students Assessed	% Exceeding Standards	% Meeting Standards	% Approaching Standards	% Not Meeting Standards
Social Sciences	Understanding of the methods social scientists use to explore social phenomena, including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical and interpretive analysis	Fall 2018	173	48%	22%	16%	14%
	Knowledge of major concepts, models and issues of at least one discipline in the social sciences	Fall 2018	173	56%	24%	11%	9%
American History	Knowledge of a basic narrative of American history: political, economic, social, and cultural, including knowledge of unity and diversity in American society						
	Knowledge of common institutions in American society and how they have affected different groups						
	Understanding of America's evolving relationship with the rest of the world						
Western Civilization	Knowledge of the development of the distinctive features of the history, institutions, economy, society, culture, etc., of Western civilization						
	Relate the development of Western civilization to that of other regions of the world.						
Other World Civilizations	Knowledge of either a broad outline of world history, <b>or</b> the distinctive features of the history, institutions, economy, society, culture, etc., of one non-Western civilization	Fall 2018	300	51%	27%	15%	8%
	Compare the perspective of at least one non-Western society with their own	Fall 2018	300	49%	28%	15%	8%
Humanities	Knowledge of the conventions and methods of at least one of the humanities in addition to those encompassed by other knowledge areas required by the General Education program						
	Students will demonstrate competence in analyzing texts in the Humanities.						
The Arts	Understanding of at least one principal form of artistic expression and the creative process inherent therein						
Fine Arts with Performance	<i>P courses:</i> create and exhibit/perform a piece in a specific art form demonstrating an understanding of that specific art form and the creative process inherent therein.						
	Critically assess artistic product in a particular art form						

Knowledge and Skills Areas / Competencies	Learning Outcomes	Information		Results <sup>1</sup>			
		Date of Assessment Semester/Year <sup>2</sup>	# Students Assessed	% Exceeding Standards	% Meeting Standards	% Approaching Standards	% Not Meeting Standards
	Articulate a personal aesthetic in response to a particular art form						
Foreign Language	Basic proficiency in the understanding and use of a foreign language						
	Knowledge of the distinctive features of culture(s) associated with the language they are studying*						
Information Management	Perform the basic operations of personal computer use						
	Understand and use basic research techniques						
	Locate, evaluate and synthesize information from a variety of sources						

### Closing the loop Summaries

<b>Mathematics/Quantitative Skills</b>	<p>a. Describe what was done in this cycle to improve teaching and learning based on the results of the <u>previous</u> assessment of this area:</p> <p>Since the last assessment cycle, there has been an expansion on the assessment data. More classes and a wider variety of classes are included to broaden the scope of assessment. We also break apart the data on Meets and Exceeds based on which year a student is in.</p> <p>Since the last assessment, our team has discussed the SUNY Rubric for assessing General Education in Mathematics. Most of us found the Rubric to be well written and easy to use for anyone unfamiliar with the process. Moreover, this rubric was easily adapted to several settings. The team discussed different artifacts that can be used for the assessment and made sure everyone understood how the assessment should be completed.</p> <p>b. Describe the major findings and what has been learned from the <u>current</u> assessment:</p> <p>As indicated in the data above, our benchmark of 80% of students meeting or exceeding expectations was not attained in any of the SLOs. The closest category was SLO 3, where students demonstrate the ability to employ quantitative methods. This is quite interesting considering in the previous assessment cycle, SLO 3 had the lowest percentage of students meeting or exceeding expectations.</p> <p>When comparing students by class year, the seniors outperformed all other class years, meeting the benchmark in all categories except for SLO 4 having 79% of students meeting or exceeding expectations.</p>
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	<p>When analyzing each SLO across student class/year, SLO 2 showed an increase in percentage of students meeting or exceeding expectations for each year: first-years (43%), sophomores (43%), juniors (61%) and seniors (89%). Similarly, if we compare the junior and senior class, the percentage of students meeting or exceeding expectations in the senior class outperformed the juniors in all five SLO categories. When comparing sophomores and juniors, the data indicates improvement in four of the SLO categories. Finally, comparing freshmen and sophomores, the data indicates improvement in three of the SLO categories. This data is very promising and should be analyzed in the next assessment cycle.</p> <p>c. Describe the actions to be taken in the next cycle to address these specific findings, showing the relationship between the findings and the response (closing the loop):</p> <p>Now that we also collect data on class year, we need to have a way to analyze this data over several cycles to have the most impact. While it is interesting to break this data down by class year, it is hard to tell if combining all of the courses together can skew some of this data. For example, one class was almost completely filled with seniors, who did extremely well in the assessment. Hence, the senior performance in the SLO categories outperformed all other class years. In other individual classes this was not necessarily the case, but when all the data is combined some of this analysis is lost. It would be very interesting to see if this pattern of improvement by class year is consistent. It is highly recommended that this type of broad assessment on class year is done again.</p> <p>If a certain course comes up frequently in future assessments, for example, Calculus I (MTH 201), it might be useful to track how each SLO is assessed over the years to target areas where improvement can be made.</p>
<p><b>Other World Civilizations</b></p>	<p>a. Describe what was done in this cycle to improve teaching and learning based on the results of the <u>previous</u> assessment of this area.</p> <p>N/A. Fall 2018 is the first cycle of assessment for this area.</p> <p>b. Describe the major findings and what has been learned from the <u>current</u> assessment:</p> <p>The performance of seniors seems to be strongest, as we'd expect. First-year scores finish a close second and sophomore scores tend to lag relatively far behind.</p> <p>The committee suspects that this may be due to a number of factors. Seniors perform strongly in these GE classes because they are exceptionally well-prepared by the time they are in their final 30 credits of a degree program. Relatively high first-year scores may be attributed to the extraordinary support Brockport offers to first-year students in their first semester (e.g., GEP 100; special advisement; and so on). The assessment data suggests that this support positions first-year students for success. The drop-off in performance during the second year seems to confirm problems about a so-called "sophomore slump," which other programs and academic units at Brockport (and in colleges more generally) confront. The committee recommends that if the college is going to consider revising GE curriculum and requirements, it take into consideration data like ours</p>

suggesting a drop-off in performance between first- and second-year students and consider whether strategic adjustments to the curriculum or sequencing might remediate such problems.

Overall, students in these courses did not quite meet the benchmark: 78% met or exceeded the criteria of SLO 1; 77% met or exceeded the criteria of SLO 2. These numbers are a bit shy of the 85% benchmark set, but close enough to affirm that we are on the right track.

c. Describe actions to be taken in the next cycle to address these specific findings, showing the relationship between the findings and the response (closing the loop):

Given the circumstances involved in assessing for the first time a general education learning outcome taught by an extremely diverse group of faculty from a wide range of academic disciplines, the committee's primary recommendations for action involve clarifying and communicating to relevant parties what these courses ought to be accomplishing, in appropriately general but not overly vague or unacceptably ambiguous terms.

The committee finds that the SLOs on which such a common understanding may be arrived to be strange, confusing, and off-putting. 1) The first SLO is framed as a disjunction, but with no clarity as to whether the "or" is exclusive or inclusive. Some instructors treat it inclusively (i.e., they offer something like a survey with occasional deep-dives; others exclusively, focusing only on a broad outline or only on distinctive features of one civilization). 2) The SLOs seem to be overly oriented toward the discipline of history: "broad outline of world *history*"; "distinctive features of the *history*"; etc. Yet many of the classes that qualify for the O credit are not historically focused at all. For instance, anthropology courses tend to focus on pre-history, which is not just early history, despite misconceptions, but constitutes a discipline of study requiring modes of inquiry distinct from history and analyzing data that history either ignores or is not suited as a discipline to analyze. Such concerns as history, economy, and so on may not be relevant to anthropology. One could make a similar case about literary studies. 3) There is an assumption in the second SLO that "western" is the default and that "other" is equivalent to non-western. This assumption occasions significant confusion because not all agree on what constitutes western history or civilization. For instance, some treat Ancient Israel as part of western civilization; others as part of the ancient "near east." Similar problems obtain for areas crucial to the Roman Empire, but not normally considered western (e.g., Egypt in late antiquity); or for Iberia under Islamic rule; or for Africa and India as colonized by European powers; and so on. Just as crucially, it is increasingly the case that our students do not necessarily identify "western culture" or "western society" as their own (especially but not uniquely International students), which makes the second SLO incoherent, as formulated.

Since the SLOs are SUNY-wide, rather than Brockport-specific, as we understand them, the committee believes that the first step toward a solution to these basic problems is to convene over the course of a semester or longer a working group of faculty who actually teach O courses with the goal of producing a memo of understanding amounting to a set of interpretive guidelines for the SLOs that would begin to explain what they actually mean in terms of boots-on-the-ground instruction at Brockport. This would be more generally reflective than a rubric for assessment, though it might ultimately inform a better rubric than the one we produced and used during this cycle. This work would have the secondary advantage of allowing faculty to share about their

	<p>pedagogical strategies, tactics, and experiences and to learn about the different ways in which their colleagues teach about “other world civilizations.” We imagine faculty in this working group occasionally visiting colleagues’ classes, as well as participating in on-going conversations. The memo-of-understanding produced would be available to new teachers of qualifying courses and could also be disseminated to, for instance, the college senate GE committee that reviews potential courses for this GE code, so that it could make better informed and less arbitrary decisions about which courses qualify for it (and fail to qualify).</p> <p>In order to pursue this closing-the-loop plan, the committee asks for financial support. Each faculty member agreeing to participate in this working group (of 4-8 faculty members) should receive a stipend of no less than \$250 per semester, and there should also be supplementary funding for refreshments. (The work might only take one semester but could possibly take two.) The committee would be very interested to see if further clarity about the mission and goal of GE courses with the O code might bring us (closer) to our assessment benchmark, especially if the clarity is obtained through a structured process of on-going interdisciplinary pedagogical discussions in which instructors who regularly teach these courses participate.</p>
<b>Social Science</b>	<p>a. Describe what was done in this cycle to improve teaching and learning based on the results of the <u>previous</u> assessment of this area:</p> <p>Based on closing the loop recommendation of the previous assessment, this cycle has focused on major concepts in social sciences from the beginning of the semester. None of the assignments given to students this time around has been about multiple-choice tests. Instructors, in this assessment cycle, wanted students to articulate their understanding of the various concepts discussed. The result shows that 76% of students have exceeded or met the expectations.</p> <p>b. Describe the major findings and what has been learned from the <u>current</u> assessment</p> <p>Students performed exceedingly well for assignments pertaining to knowledge of concept and terminologies and issues in social science disciplines, while assignments on methods proved more challenging. As a result, there is a need for more focus on methods, by instructors in future semesters.</p> <p>c. Describe the actions to be taken in the next cycle to address these specific findings, showing the relationship between the findings and the response (closing the loop):</p> <p>In the future, a continued focus on concepts, models and issues in the disciplines of social sciences is required to improve SLO#2. Indeed, although the benchmark has been reached, there is still room for improvement. As for SLO#1, addressing methods, a special focus is as well required. The assessment of this SLO shows that more specialized and frequent assignments should be part of students’ performance throughout the semester, in order to improve the next data.</p>
<b>Oral Communication</b>	<p>a. Describe what was done in this cycle to improve teaching and learning based on the results of the <u>previous</u> assessment of this area:</p>

To evaluate SLO 1, the committee used a common rubric to standardize expectations and evaluations. The rubric created by last year's committee was updated slightly and incorporated for this purpose. We found the rubric to be comprehensive and straightforward for the purpose of evaluating presentation quality regarding clarity, engagement, and content. However, the evaluation of the peer evaluations (item 4 on the rubric) could use some improvements (see below).

Based on last year's recommendation to improve quality of peer evaluations (SLO 2), this year's assessment committee developed a detailed peer evaluation form for students to use in their evaluations. The form required ratings for specific criteria based on the presentation rubric criteria for SLO 1. In addition, for each major category (i.e., clarity, engagement, and content), some instructors required students to provide specific reasoning for their evaluation choices.

b. Describe the major findings and what has been learned from the current assessment:

Overall, the benchmark was met for SLO 1 (81.9% of all students either met or exceeded criteria set forth for quality of presentations). The only class-level exception to this pattern was within the sophomore class, where only 72.3% of the students either met or exceeded the criteria. While first-year students did meet the benchmark, the sample size was extremely low (six students). Thus, we hesitate to draw conclusions as to whether this is an accurate portrayal of the ability of first-year students to effectively give an oral presentation. Considering (a) the small first-year sample size and (b) the fact that sophomores did not meet the benchmark, these data may suggest room for improvement in these two classes.

Students continue to struggle with evaluation of peer presentations (SLO 2). However, the majority of students still met or exceeded the criteria set forth for SLO 2 despite the fact that the benchmark of 80% was not achieved. There are a number of reasons the committee discussed that could be contributing to either (a) students' inability to accurately and effectively evaluate their peers or (b) in our standardization as instructors of quality of peer evaluations. Regarding student abilities, committee members noted "evaluation fatigue" – evaluation quality appeared to decrease as the number of evaluations they had to complete increased (if they were required to evaluate all other students in the class). In addition, students tended to provide very high scores on their peer evaluations and often provided no specific reasoning as to why these high scores were deserved.

One aspect of the Peer Evaluation form noted as less than useful was the following question regarding content: "Was the information accurate?" This item was often scored highly but is difficult for students to accurately assess considering the presenters may be discussing topics about which they (the evaluators) have little knowledge.

Finally, a more general observation the committee discussed dealt with the significant variety of types of students and specifics of the oral presentation assignments across courses. For example, in the Department of Earth Science, the only Gen Ed course that requires oral presentations (an issues course) is taught every other year. This department will address this by requiring students to attend Scholar's day with the rubrics required for this assessment. This variety creates inherent difficulty in obtaining accurate data with only a year or two of samples. However, as the

	<p>assessment process continues and a larger dataset is built, this variance will likely become less of an issue.</p> <p>c. Describe the actions to be taken in the next cycle to address these specific findings, showing the relationship between the findings and the response (closing the loop):</p> <p>While the SLO 1 benchmark was achieved, the committee noted some commonalities among student presentations that could use improvement. Some general suggestions to continue to improve the outcomes for SLO 1 include:</p> <ol style="list-style-type: none"> <li>1. Encouraging students to focus on “presentation voice” (e.g., projection and clarity/lack of mumbling).</li> <li>2. Emphasizing the importance of preparing well ahead of time (e.g., practicing in front of other students or faculty).</li> <li>3. Focusing on limiting the amount of text on PowerPoint slides.</li> <li>4. Emphasizing the importance of oral presentations, and why presentation skills are particularly important (e.g., for their future careers).</li> </ol> <p>In order to improve the outcomes for SLO 2, the committee has several suggestions:</p> <ol style="list-style-type: none"> <li>1. To improve quality of student evaluations, incorporate sample presentations for students to practice evaluating prior to their peer evaluations.</li> <li>2. Consider implementing an upper limit on the number of presentations students are required to evaluate to avoid “evaluation fatigue.”</li> <li>3. Require students to provide reasoning for their evaluation scores within each main category (clarity, engagement, and content).</li> <li>4. Revise the standards for the “Evaluation” segment of the Oral Communication Rubric to help standardize instructors’ grading criteria and decrease the impact of subjectivity in the grading process.</li> <li>5. Continue to emphasize the importance of peer evaluation and the ability to critically evaluate others’ work.</li> </ol>
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