

## Report to Senate by Joint Committee on General Education Requirements and Academic Assessment and Evaluation

**Introduction.** The Hunter College Faculty Senate first passed its institutional General Education Assessment Plan in April 2018, and then updated it for another five-year cycle in May 2022 (see attached calendar). The Hunter College Senate’s Joint Committee on General Education Assessment (comprised of members of the Committee of General Education Requirements and the Committee on Academic Assessment & Evaluation), in cooperation with the Assessment Office and the Provost’s Office, planned and implemented student learning outcome assessments in the following categories in the 2022-2023 Academic Year: English Composition, Mathematics and Quantitative Reasoning, and Life and Physical Sciences (LiPS).

Because student learning outcomes (SLOs) in English Composition were assessed successfully in 2018-2019, we were able to use a similar rubric for the seven SLOs as in the previous cycle, as well as a similar methodology, with the main difference being the inclusion of English 220 in addition to 120, making this year’s assessment broader.

### English Composition Assessment Process

For both classes, students were assigned to write 10-page papers. At the end of the semesters, two papers were randomly selected from each section, for a total of 199 papers for ENGL 120 and 160 papers for ENGL 220, for a total sample of 359 student artifacts assessed. A combination of instructors and librarians were selected to conduct the assessment, with each paper to be reviewed by one instructor and one librarian. Prior to conducting their assessment, all members of the assessment team met for norming sections in which they viewed a few examples of student papers together with the rubric in order to reach a general understanding of what each of the five levels of competency means for each of the student learning outcomes. A comprehensive report was submitted to the Assessment Director, Joel Bloom, who in turn drafted a summary report for the Senate Committees on Academic Assessment and Evaluation, and General Education Requirements, excerpts of which are contained within this report.

### Summary of Results:

For all learning outcomes in English Composition, large majorities of students were found to have achieved competence or higher in both classes, although there is variation among outcomes (see Table below).

### Assessment Results in English Composition Assessment in ENGL 120 and 220 Combined

English Composition General Education Outcomes	Failure	Weak	Competent	Good	Excellent	Top 3 Categories	Total Assessed
1. Focus and Thesis	2.2%	19.2%	29.0%	34.5%	15.0%	78.6%	359
2. Argumentation and Evidence	4.2%	22.0%	35.7%	28.1%	10.0%	73.8%	359
3. Organization and Coherency	1.1%	15.6%	36.8%	34.0%	12.5%	83.3%	359
4a. Engagement with Sources	2.8%	24.8%	35.7%	27.0%	9.7%	72.4%	359
4b. Choice of Sources	3.5%	14.6%	30.7%	33.2%	18.1%	81.9%	199
4c. Integration and Attribution of Sources	4.2%	28.7%	30.4%	28.7%	8.1%	67.1%	359
5. Style and Grammar	0.5%	5.5%	21.1%	32.2%	40.7%	94.0%	199

Those involved in the English composition assessment clearly spent a great deal of time on the assessment, as well as analysis and conclusions. They also reflected on how they can use the assessment results as a program to improve curriculum, instruction, and student learning. The results are positive. However, the program does report a small decline in student learning, which they attribute to COVID learning loss, increase in section sizes, increases in numbers of ESL students, and loss of resources for professional development.

### Recommendations:

Based on this, the program recommended several actions to be taken, including making sure all sections assign the pre/post semester responses and 10 page research paper, providing instructors with a sample syllabus that emphasizes requirements and scaffolded processes, allowing for lower course caps, and providing more sections of English 120/220 specifically for ESL students. An additional suggestion was to provide more professional development on learning loss, scaffolding the writing process, and understanding and valuing cultural differences in argumentation. The committee encourages the administration at Hunter College to take a careful look at Program requests, and consider them on their merits in the context of Hunter College resources.

## Mathematics and Quantitative Reasoning

### Assessment Process

Working with the Joint Committee and the Director of Assessment, Mathematics and Statistics Department's Assessment Coordinator selected sections and assessment methods, and conducted the assessments. Student work for this assessment was collected in Fall 2022, and analyzed in Winter and early Spring 2023. Overall, 122 pieces of student work were assessed from MATH 102 and another 98 were assessed from MATH 150, for a total of 220. On completion of the assessment activities, the results were compiled and analyzed.

### Summary of Results

As shown in the Table above and the charts below, for the majority of learning outcomes, majorities of students were found to be meeting or exceeding the expectations for MQR, although there is substantial variation among outcomes. Of the six outcomes assessed, three showed over 75% meeting or exceeding expectations; two others were over 60%, and the lowest (outcome 6) was only 56%.

Mathematical & Quantitative Reasoning General Education Outcomes	Does not Meet Expectations	Approaches Expectations	Meets Expectations	Exceeds Expectations	Top 2 Categories	Total Assessed
1. Interpret and draw appropriate inferences from quantitative representations, such as formulas, graphs, or tables.	11.8%	11.8%	29.1%	47.3%	76.4%	220
2. Use algebraic, numerical, graphical, or statistical methods to draw accurate conclusions and solve mathematical problems.	12.3%	11.4%	29.1%	47.3%	76.4%	220
3. Represent quantitative problems expressed in natural language in a suitable mathematical format.	21.4%	17.3%	25.5%	35.9%	61.4%	220

4. Effectively communicate quantitative analysis or solutions to mathematical problems in written or oral form.	9.8%	13.9%	29.5%	46.7%	76.2%	122
5. Evaluate solutions to problems for reasonableness using a variety of means, including informed estimation.	12.3%	23.8%	36.9%	27.0%	63.9%	122
6. Apply mathematical methods to problems in other fields of study.	16.4%	27.7%	24.1%	31.8%	55.9%	220

**Recommendations from the Math and Statistics Department and Math Assessment Coordinator are outlined below:**

Actions To Be Taken	Who Will Take these Actions?	Timeframe for implementation and intermediate steps
Consider partnering with the Dolciani Mathematics Learning Center (DMLC) to support students and refer them individually to tutoring, workshops, etc.	Dept. Chairs and DMLC	2023-2024
Consider “extension” courses or workshops to be offered in Winter and Summer required for students who earn a “C” in a 100-level course, to reinforce their knowledge before taking the next level course.	Dept. Chairs and DMLC	2023-2024
Consider remedial workshops for students who earn “D” or “F” in a 100-level course to help them learn basic skills before retaking the class.	Dept. Chairs and DMLC	2023-2024
Require most or all students take Hunter’s in-house Math Placement Test to help them and their advisors decide the right course placement.	Math/Stat Dept. and Hunter Testing Center	Spring 2023
Urge instructors to utilize CUNY’s Early Alert system to refer struggling students to tutoring, counseling, advising, and other services as needed.	Chairs, Course Coordinators, and Instructors	2023-2024
Consider adding more coordination/standardization to multi-section courses.	Chairs and Course Coordinators	Fall 2023
Support coordinators and adjunct faculty with training sessions, etc.	Administration and Chairs	2022-2023

Make sure students are aware of the free counseling and mental health services available. Encourage instructors and advisors who notice students struggling with either to refer them to an appropriate office or service.	Chairs, Faculty, and Advisors	Spring 2023
--	-------------------------------	-------------

## Life and Physical Sciences:

### Assessment Process:

In Fall 2022, the Director of Assessment contacted chairs and assessment coordinators from the five departments scheduled to offer courses in the LiPS category in the Spring term. They were provided with a rubric and an offer to suggest changes to it, along with a list of Spring 2023 courses in their department in the LiPS category, with a request to select one or more courses or sections and assess a total of at least 50 students' work in the Spring.

Because LiPS was assessed three years earlier, faculty from the five departments declined the opportunity to have workshops on how to use the rubric and the report template as prescribed by the GER/assessment calendar approved by the Hunter College Faculty Senate in May 2022.

### Summary of Results:

The Table below puts all the main findings into one place, including sample size, the numbers and percentages in each category for each outcome, and the percentage of combined "meets expectations" and "exceeds expectations" for each outcome. Overall, the lowest assessment ratings were in the Outcome 4b assessment with 67% meeting or exceeding expectations, and the highest was Outcome 5, at 90% (noting that Outcome 5 was only assessed in 2 out of 5 departments). The other three outcomes were tightly distributed between 70% and 73%, meeting or exceeding expectations. Rounding errors should be considered when reading the below chart.

### Summary of Spring 2023 Life and Physical Sciences Assessment Results

Life and Physical Sciences Student Learning Outcomes	Does not Meet Expectations		Approaches Expectations		Meets Expectations		Exceeds Expectations		Total	Combined Meets + Exceeds
	N	%	N	%	N	%	N	%	N	%
1. Identify & apply the fundamental concepts & methods of a life or physical science.	46	15%	41	14%	102	34%	108	36%	297	70%
2/4a. Apply the scientific method to explore natural phenomena, including hypothesis development, experimentation, measurement, data analysis, & data presentation. 4a. Gather, analyze, & interpret data...	22	10%	37	16%	84	37%	85	37%	228	74%
3. Use the tools of a scientific discipline to carry out collaborative laboratory investigations.	36	12%	44	15%	80	27%	138	46%	298	73%

4b. ...and present it in an effective written laboratory or fieldwork report.	33	14%	46	19%	57	24%	106	44%	242	67%
5. Identify & apply research ethics & unbiased assessment in gathering & reporting scientific data.	6	5%	7	6%	32	26%	79	64%	124	90%

**Recommendations:**

The failure to separate assessments of SLO 3a and 3b indicates that it is essential to have faculty attend rubric workshops, so they can ask any questions they may have about the rubric and/or the overall assessment.

During the next LiPS cycle, it will be important to address SLO 5 focusing on research ethics, making sure courses chosen for this assessment cover research ethics and reporting of scientific data.

**Committee Overall Recommendations:**

We are very grateful to those departments participating in this assessment. Both the GER and AAE committees discussed all of the assessments, and provided the following recommendations:

-It would be interesting to get data on how many students received a grade of W or INC in these courses during the semester they were assessed in order to get an accurate picture of student participation in the courses; as we know rates of W and INC's have increased in recent years.

-It is essential to "close the loop" in the immediate future on all of these assessments, discussing the strengths and weaknesses of the assessments with the departments who participated, as well as ideas for future reliable and valid assessment within the 5 year cycle, as the goal is always for assessment to improve in each cycle.

-We recommend the attendance at workshops and close the loop sessions offered by the Office of Assessment, to better understand the purpose of GER/Assessment and review rubrics and plans for assessment.