

Course-Level Assessment Report Course: __CHEM 1105____ Academic Year: __2021-2022____

Due to Chair/Program Director and Faculty Assessment Chair by September 1





1. Name of course:	General Chemistry 1 Lab
2. Name of individual(s) compiling report:	Dr. Michael Julian
3. Date of submission:	9/20/2022
4. Academic year:	2021-2022

Course-Level Learning Outcomes

1. What are the Course-Level Outcomes (CLOs)?

GC1CLO 1 – **Math Concepts & Chemical Nomenclature** – Students will utilize measurable properties and apply Metric/American conversions using correct significant figures and scientific notation during calculations. Students will apply the rules of chemical nomenclature as it pertains to bond type.

GC1CLO 2 – Chemical Reactions & Stoichiometry – Students will utilize all aspects of the chemical reaction and apply stoichiometric calculations to predict theoretical yield. GC1CLO 3 – Gas Behavior & Thermal Energy – Students will utilize all aspects of gas behavior and apply the gas laws to predict amounts involved in gas samples. Students will apply stoichiometry to predict heat flow amounts in a reaction.

GC1CLO 4 – Chemical Bonding & 3D Chemical Structure – Students will predict the 3D-Structure of molecules and ions and describe the bonding within.

2. Which CLOs were addressed for the academic year?

GC1CLO 1 – **Math Concepts & Chemical Nomenclature** – Students will utilize measurable properties and apply Metric/American conversions using correct significant figures and scientific notation during calculations. Students will apply the rules of chemical nomenclature as it pertains to bond type

3. Which CLOs are being addressed in your assessment plan in the upcoming academic year?

GC1CLO 1 – **Math Concepts & Chemical Nomenclature** – Students will utilize measurable properties and apply Metric/American conversions using correct significant figures and scientific notation during calculations. Students will apply the rules of chemical nomenclature as it pertains to bond type

Return to Top of Document



4. How does this report connect or map to program-level or institutional-level outcomes?

(ILO link: <u>https://uaptc.edu/college-academics/resources/student-learning-outcomes</u> PLO list will vary depending on your Program.)

Discipline/Program Learning Outcomes

The Biology, Chemistry, Health, and Physical science disciplines, consistent with the College's mission and the School's objectives, encourage the success of its students in all technical fields and academic disciplines by:

- 1. Demonstrate critical and independent thinking through scientific investigation
- 2. Demonstrate professionalism in communication and collaboration
- 3. Analyze the influence of scientific thought on individuals and society
- 4. Demonstrate proper use of scientific instrumentation and laboratory techniques

This CLO corresponds to PLO 1

For each Course Level Outcome assessed this academic year, please complete the chart below, providing the assessment data for both fall and spring, and then a total for the academic year.

Assessment Methods- How did you assess student learning (define direct assessment methods used) in relation to the course level outcome being reported?	Students across all sections completed a common lab assignment. The student performance was measured on several key questions.	
was used, you may insert an additional row.		
Were indirect assessment methods		No
also used to assess students? If		no



'yes', please describe the method used.			
How do you define success for an individual student on the CLO assessment assignment or measure?	Student scores 75% on the questions linked to the CLO		
How do you define success for the course level outcome? What is the benchmark for the Course Level Outcome?	70% of students in the course achieve success on the CLO assessment assignment or measure		
How many students completed the assessment, and how many were successful?	<i>Fall</i> 20 students assessed 19 successful (95% success rate)	<i>Spring</i> 26 students assessed 22 successful (85% success rate)	
Academic Year Total (add the numbers from Fall and Spring)	46 students assessed 41 successful (89% success rate)		
Was the benchmark/goal for this academic year met?	Yes		
Were standardized rubrics, tests, or checklists used?	Yes		

5. What is your analysis of the findings?

For CLO 1.

The results show that the students are doing well on this material. As we were remodeling the lab building both semesters, the grading was easier than in previous semesters. This resulted in unusually high success rates



6. What is the action plan for the upcoming academic year? Explain.

We will work to improve our direct measurement and reporting rubrics. Instructors will meet at the end of the fall semester to review results and data will be examined across modalities to determine any necessary changes for spring. Instructors will meet again after the spring semester ends to identify trends and consider adjustments for the next academic year.