

Course-Level Assessment Report Course: __CHEM 1106____ Academic Year: __2021-2022____

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





1. Name of course:	General Chemistry 2 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)?

GC2CLO 1 – Intermolecular Forces & Colligative Properties - Students will utilize the intermolecular force model to predict and explain substance properties including colligative properties.

GC2CLO 2 – Chemical Kinetics - Students will utilize the rate laws to monitor the kinetic behavior of substances undergoing a chemical reaction and justify the reaction mechanism proposed by others.

GC2CLO 3 – General Equilibria & Solid Equilibria – Students will construct equilibrium expression equations, ICF, ICE diagrams and predict equilibrium shifts and amounts involved in equilibrium reactions. Students will apply all equilibrium concepts to both heterogeneous and homogeneous systems in the calculation of values involved in solid equilibria.

GC2CLO 4 – Acid / Base Chemistry & Acid / Base Equilibria - Students will recognize the specific identifiers of the acid base theories. Students will construct equilibrium expression equations, ICF, ICE diagrams and predict equilibrium shifts and amounts involved in acid base equilibrium reactions. Students will appraise titration curve graphs to make conclusions about the identity and amounts involved with substances being titrated.

GC2CLO 5 – Thermodynamics, REDOX & Electrochemistry - Students will define and calculate thermodynamic quantities. Students will recall the steps involved in balancing complex oxidation-reduction reaction equations in acidic solution using half-reactions. Students will label both galvanic and electrolytic electrochemical cells and construct these cells as they pertain to half reactions and the production on electricity related to the redox process.

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2. Which CLOs were addressed for the academic year?

GC2CLO 1 – Intermolecular Forces & Colligative Properties - Students will utilize the intermolecular force model to predict and explain substance properties including colligative properties.

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

GC2CLO 1 – Intermolecular Forces & Colligative Properties - Students will utilize the intermolecular force model to predict and explain substance properties including colligative properties.

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

(ILO link: https://uaptc.edu/college-academics/resources/student-learning-outcomes

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

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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 'yes', please describe the method used.		no
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	<i>Fall</i> 12 students assessed	<i>Spring</i> 17 students assessed
	(100% success rate)	(100% success rate)
Academic Year Total (add the numbers from Fall and Spring)	29 students assessed 29 successful (100% 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.