



Annual Assessment Report 2020-2021

MS Chemistry Chemistry and Biochemistry College of Science

CONTACT

Name of Program Assessment Lead Gregory A. Barding Jr.

Name of Person Completing Report Alex John

DISCIPLINARY ACCREDITATION No

DEVELOPMENT AND DOCUMENTATION OF STUDENT LEARNING OUTCOMES

How were the program's SLOs developed? (select all that apply)

- ☐ We developed them as a program/department using our own knowledge and expertise of the field.

Other than the [CPP Catalog](#) and the [Office of Assessment and Program Review website](#), where else are your SLOs published? Select all that apply.

- Department Website - provide URL: <https://www.cpp.edu/sci/chemistrybiochemistry/graduatestudents/studentlearning-outcomes.shtml>
- Course Syllabi

ASSESSMENT ACTIVITIES IN 2020-2021

This section provides the opportunity for programs to share and discuss assessment activities conducted in **AY 2020-2021**. This includes data collection, rubric development, data analysis, discussion of findings, development or implementation of closing the loop improvement strategies, update of your assessment plan and/or curriculum matrix, etc.

How many total SLOs does your program assess according to your assessment plan?

- 5

How many SLOs did your program assess this past year in 2020-2021?

- My program assessed SLOs in AY 2020-2021

Please list the SLOs examined

- SLO #1: Question and probe scientific issues through critical analysis of the chemical literature
- SLO #2: Demonstrate proficiency in scientific writing
- SLO #3: Demonstrate proficiency in oral communication of science
- SLO #4: Develop and pursue hypothesis through appropriate experimental design
- SLO #5: Demonstrate successful application of the scientific method.

Student Learning Outcome (SLO)	Assessment Activities	Evidence Used	Evaluation and Interpretation of Evidence	Findings			
				N of Artifacts	Criterion Used	Goal Met	Eye-opening Result
SLO 1: Question and probe scientific issues through critical analysis of the chemical literature	<ul style="list-style-type: none"> Collected direct evidence (e.g., student work, exam items, etc.) Scored direct evidence of student learning 	<ul style="list-style-type: none"> Oral performance (e.g., presentation, defense, conference presentation, etc) Thesis or dissertation (graduate-level only) 	Used a rubric or scoring guide	4	Average score above 2 out of 3	Yes	Students are highly successful in the program. They usually pass in the first attempt.
	<ul style="list-style-type: none"> Discussed assessment results to make program decisions to improve SLO achievement (e.g., design new course, modify assignment, etc) 						

Student Learning Outcome (SLO)	Assessment Activities	Evidence Used	Evaluation and Interpretation of Evidence	Findings			
				N of Artifacts	Criterion Used	Goal Met	Eye-opening Result
SLO 2: Demonstrate proficiency in scientific writing	<ul style="list-style-type: none"> Collected direct evidence (e.g., student work, exam items, etc.) Scored direct evidence of student learning 	<ul style="list-style-type: none"> Thesis or dissertation (graduate-level only) 	Used a rubric or scoring guide	4	Average score above 2 out of 3	Yes	Students are highly successful in the program. They usually pass in the first attempt.
	<ul style="list-style-type: none"> Discussed assessment results to make program decisions to improve SLO achievement (e.g., design new course, modify assignment, etc) 						

Student Learning Outcome (SLO)	Assessment Activities	Evidence Used	Evaluation and Interpretation of Evidence	Findings			
				N of Artifacts	Criterion Used	Goal Met	Eye-opening Result
SLO 3: Demonstrate proficiency in oral communication of science	<ul style="list-style-type: none"> Collected direct evidence (e.g., student work, exam items, etc.) 		Used a rubric or scoring guide	4	Average score above 2 out of 3	Yes	Students are highly successful in the program. They usually pass in the first attempt.

Student Learning Outcome (SLO)	Assessment Activities	Evidence Used	Evaluation and Interpretation of Evidence	Findings			
				N of Artifacts	Criterion Used	Goal Met	Eye-opening Result
SLO 4: Develop and pursue hypothesis through appropriate experimental design	<ul style="list-style-type: none"> Collected direct evidence (e.g., student work, exam items, etc.) Scored direct evidence of student learning 	<ul style="list-style-type: none"> Oral performance (e.g., presentation, defense, conference presentation, etc.) Thesis or dissertation (graduate-level only) 	Used a rubric or scoring guide	4	Average score above 2 out of 3	Yes	Students are highly successful in the program. They usually pass in the first attempt.

Student Learning Outcome (SLO)	Assessment Activities	Evidence Used	Evaluation and Interpretation of Evidence	Findings			
				N of Artifacts	Criterion Used	Goal Met	Eye-opening Result
SLO 5: Demonstrate successful application of the scientific method.	<ul style="list-style-type: none"> Collected direct evidence (e.g., student work, exam items, etc.) Scored direct evidence of student learning 	<ul style="list-style-type: none"> Oral performance (e.g., presentation, defense, conference presentation, etc.) Thesis or dissertation (graduate-level only) 	Used a rubric or scoring guide	4	Average score above 2 out of 3	Yes	Students are highly successful in the program. They usually pass in the first attempt.

IMPROVING THROUGH ASSESSMENT

Overall, what best describes how the program used the results in 2020-2021? Select all that apply.

- Assessment procedure changes (SLOs, curriculum matrix, rubrics, evidence collected, sampling, communications with faculty, etc.)
- Program curricular changes (e.g. course sequencing, changes to required curriculum, added or deleted courses)
- Results indicated no action needed because students met expectations

Ideas to improve student learning can come from different constituents. With whom did the program discuss assessment planning and/or share results during AY 2020-2021? Select all that apply.

- A committee of program/department faculty
- College Assessment Liaison

The past academic year posed both challenges and opportunities. Please share any assessment discoveries (e.g., insights about assessment procedures, great achievements, etc.) regarding program assessment in 2020-2021 so that others may learn from your experiences.

The transition to online based oral defense talks was very successful and allowed for broader participation from students, faculty, and community.

CPP's GI2025 goals focus on eliminating equity gaps. What plans do you already implement, or would implement to support the campus' diversity, equity, and inclusion (DEI) efforts? (e.g., planned or current disaggregation of assessment data by race/ethnicity, etc.)

We are currently not disaggregating assessment data based on race/ethnicity as our sample size is too small.

The most current assessment plan and curriculum matrix we have on file for your program may be found [here](#). To ensure we have the most updated assessment plan and curriculum matrix for your program, and for posting on our website, please upload the following documents:

Assessment Plan Yes

Curriculum Matrix Yes