



Annual Assessment Report 2020-2021

BS Biology, BS Biotechnology, and BS Environmental Biology Biological Sciences College of Science

CONTACT

Name of Program Assessment Lead Paul Beardsley

Name of Person Completing Report Paul Beardsley

DISCIPLINARY ACCREDITATION No

DEVELOPMENT AND DOCUMENTATION OF STUDENT LEARNING OUTCOMES

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

- ☐ We do not have disciplinary accreditation but drew from our disciplinary/professional organizations, and developed our SLOs as a program/department.

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/biologicalsciences/about/undergraduate-student-learningobjectives.shtml>

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?

- 4

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: Students will demonstrate an understanding of core concepts spanning scales from molecules to ecosystems, by analyzing biological scenarios and data from scientific studies. Students will correctly identify and explain the core biological concepts involved relative to: biological evolution, structure and function, information flow, exchange, and storage, the pathways and transformations of energy and matter, and biological systems.
- SLO #2: LO 3. Students will demonstrate the ability to ask and answer questions in the biological sciences by applying the process of science to designing and conducting experiments. To this end, students will appropriately use models and simulations, construct explanations based on evidence derived from the analysis of data, and explain the interdisciplinary nature of science as appropriate.

Student Learning Outcome (SLO): SLO 1: Students will demonstrate an understanding of core concepts spanning scales from molecules to ecosystems, by analyzing biological scenarios and data from scientific studies. Students will correctly identify and explain the core biological concepts involved relative to: biological evolution, structure and function, information flow, exchange, and storage, the pathways and transformations of energy and matter, and biological systems

Assessment Activities	Evidence Used	Evaluation and Interpretation of Evidence
<ul style="list-style-type: none"> Scored direct evidence of student learning 		<ul style="list-style-type: none"> External organization/person analyzed data (e.g., external organization administered and scored the NCLEX)
<ul style="list-style-type: none"> Discussed assessment results to make program decisions to improve SLO achievement (e.g., design new course, modify assignments, etc.) 		

Findings			
N of Artifacts	Criterion Used	Goal Met	Eye-opening Result
502	Comparison of performance to other institutions	Yes	Even in the face of a pandemic, students were achieving on this SLO at very similar rates to prepandemic

Student Learning Outcome (SLO): SLO #2: LO 3. Students will demonstrate the ability to ask and answer questions in the biological sciences by applying the process of science to designing and conducting experiments. To this end, students will appropriately use models and simulations, construct explanations based on evidence derived from the analysis of data, and explain the interdisciplinary nature of science as appropriate.

Assessment Activities	Evidence Used	Evaluation and Interpretation of Evidence
<ul style="list-style-type: none"> Created/modified/discussed assessment procedures (e.g., SLOs, curriculum matrix, mechanism to collect student work, rubric, survey, etc.) 		
<ul style="list-style-type: none"> Collected direct evidence (e.g., student work, exam items, etc.) 	<ul style="list-style-type: none"> Assignment/exam/paper as part of regular coursework 	

Findings			
N of Artifacts	Criterion Used	Goal Met	Eye-opening Result

IMPROVING THROUGH ASSESSMENT

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

- 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.

- Program/department faculty as whole
- Program/department assessment committee

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.

We conducted a large survey of students near the end of fall 2020 to better understand ways to improve our virtual courses. We had a decent response rate to our Qualtrics survey and the results were shared with the department. We are happy to provide the report if requested. Discussion of the survey in the college assessment committee resulted in our physics colleagues offering a similar survey.

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 examined the student success dashboard to help faculty be aware of achievement or opportunity gaps in our courses. We also had 12 faculty participate in a Motivating Learners professional development opportunity. The course has a strong emphasis on DEI interventions. We targeted faculty teaching mostly lower-level courses.

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