



Annual Assessment Report 2022-2023

BS Computer Science Computer Science College of Science

CONTACT

Name of Program Assessment Lead Hao Ji

Name of Person Completing Report Hao Ji

DISCIPLINARY ACCREDITATION Yes

DEVELOPMENT AND DOCUMENTATION OF STUDENT LEARNING OUTCOMES

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

- Our disciplinary accrediting agency has required learning outcomes, so we use them.

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/computerscience/programevaluation/accreditationand-assessment.shtml>

ASSESSMENT ACTIVITIES IN 2022-2023

This section provides the opportunity for programs to share and discuss assessment activities conducted in **AY 2022-2023**. 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?

- 6

How many SLOs did your program assess this past year in 2022-2023?

- My program assessed SLOs in AY 2022-2023 (e.g., artifact collection, scoring, closing the loop, etc.). May also have engaged in assessment planning activities unrelated to specific SLOs (e.g., modified curriculum matrix, assessment plan, etc.).

Please list the SLOs examined

- SLO #1: Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
- SLO #2: Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- SLO #3: Communicate effectively in a variety of professional contexts.
- SLO #4: Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- SLO #5: Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
- SLO #6: Apply computer science theory and software development fundamentals to produce computing-based solutions.

Student Learning Outcome (SLO): Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.

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.) Scored direct evidence of student learning 	<ul style="list-style-type: none"> Assignment/exam/paper completed as part of regular coursework 	<ul style="list-style-type: none"> Scored exams/tests/quizzes
<ul style="list-style-type: none"> Collected indirect evidence of student learning (e.g., surveys, interviews, focus groups, etc.) Scored indirect evidence of student learning 	<ul style="list-style-type: none"> Student survey/interview/focus group with self-reports of SLO achievement Employer meetings/discussions/survey/interview of student SLO achievement 	
<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.) Implemented closing the loop improvement strategies to improve SLO achievement 		

Findings			
N of Artifacts	Criterion Used	Goal Met	Eye-opening Result
122	70%	Yes	

Student Learning Outcome (SLO): Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.

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.) Scored direct evidence of student learning 	<ul style="list-style-type: none"> Assignment/exam/paper completed as part of regular coursework 	<ul style="list-style-type: none"> Scored exams/tests/quizzes
<ul style="list-style-type: none"> Collected indirect evidence of student learning (e.g., surveys, interviews, focus groups, etc.) Scored indirect evidence of student learning 	<ul style="list-style-type: none"> Student survey/interview/focus group with self-reports of SLO achievement Employer meetings/discussions/survey/interview of student SLO achievement 	
<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.) Implemented closing the loop improvement strategies to improve SLO achievement 		

Findings			
N of Artifacts	Criterion Used	Goal Met	Eye-opening Result
157	70%	Yes	

Student Learning Outcome (SLO): Communicate effectively in a variety of professional contexts.

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.) Scored direct evidence of student learning 	<ul style="list-style-type: none"> Assignment/exam/paper completed as part of regular coursework 	<ul style="list-style-type: none"> Scored exams/tests/quizzes
<ul style="list-style-type: none"> Collected indirect evidence of student learning (e.g., surveys, interviews, focus groups, etc.) Scored indirect evidence of student learning 	<ul style="list-style-type: none"> Student survey/interview/focus group with self-reports of SLO achievement Employer meetings/discussions/survey/interview of student SLO achievement 	
<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.) Implemented closing the loop improvement strategies to improve SLO achievement 		

Findings			
N of Artifacts	Criterion Used	Goal Met	Eye-opening Result
102	70%	Yes	

Student Learning Outcome (SLO): Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.

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.) Scored direct evidence of student learning 	<ul style="list-style-type: none"> Assignment/exam/paper completed as part of regular coursework 	<ul style="list-style-type: none"> Scored exams/tests/quizzes
<ul style="list-style-type: none"> Collected indirect evidence of student learning (e.g., surveys, interviews, focus groups, etc.) Scored indirect evidence of student learning 	<ul style="list-style-type: none"> Student survey/interview/focus group with self-reports of SLO achievement Employer meetings/discussions/survey/interview of student SLO achievement 	
<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.) Implemented closing the loop improvement strategies to improve SLO achievement 		

Findings			
N of Artifacts	Criterion Used	Goal Met	Eye-opening Result
197	70%	Yes	

Student Learning Outcome (SLO): Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.

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.) Scored direct evidence of student learning 	<ul style="list-style-type: none"> Assignment/exam/paper completed as part of regular coursework 	<ul style="list-style-type: none"> Scored exams/tests/quizzes
<ul style="list-style-type: none"> Collected indirect evidence of student learning (e.g., surveys, interviews, focus groups, etc.) Scored indirect evidence of student learning Interpreted and made meaning of findings for indirect evidence 	<ul style="list-style-type: none"> Student survey/interview/focus group with self-reports of SLO achievement Employer meetings/discussions/survey/interview of student SLO achievement 	
<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.) Implemented closing the loop improvement strategies to improve SLO achievement 		

Findings			
N of Artifacts	Criterion Used	Goal Met	Eye-opening Result
168	70%	Yes	

Student Learning Outcome (SLO): Apply computer science theory and software development fundamentals to produce computing-based solutions.

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.) Scored direct evidence of student learning 	<ul style="list-style-type: none"> Assignment/exam/paper completed as part of regular coursework 	<ul style="list-style-type: none"> Scored exams/tests/quizzes
<ul style="list-style-type: none"> Collected indirect evidence of student learning (e.g., surveys, interviews, focus groups, etc.) Scored indirect evidence of student learning 	<ul style="list-style-type: none"> Student survey/interview/focus group with self-reports of SLO achievement Employer meetings/discussions/survey/interview of student SLO achievement 	
<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.) Implemented closing the loop improvement strategies to improve SLO achievement 		

Findings			
N of Artifacts	Criterion Used	Goal Met	Eye-opening Result
168	70%	Yes	

IMPROVING THROUGH ASSESSMENT

Overall, what best describes how the program used the results in 2022-2023? 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 2021-2022? 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 2022-2023 so that others may learn from your experiences.

AY2022-2023 covers the third year's assessment activities, in accordance with the revised assessment plan proposed in Fall 2020. Throughout this year, our department has continued its evaluation of student learning outcomes with a combination of both direct and indirect assessment measures. Upon being reviewed by the assessment committee, the assessment results with its recommendations for action is forwarded to the department for discussion and approval.

Please share how the program triangulates various data sources to determine student success. Consider assessment findings, [CPP's GI2025 markers](#), [CSU Dashboard](#), [CPP's Student Success Dashboard on Tableau](#), course evaluations, etc.

Our PEO3 was revised and approved by the department. The Fulfillment of PEO3 is achieved through our courses such as CS3750, CS4630 and CS4800.

Does the program offer a certificate or credential (e.g., teaching credential)?

- No

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