



Annual Assessment Report 2021-2022

BS Computer Science Computer Science College of Science

CONTACT

Name of Program Assessment Lead Fang Tang (Fall 2022), Hao Ji (Spring 2023)

Name of Person Completing Report Fang Tang

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/index.shtml>

ASSESSMENT ACTIVITIES IN 2021-2022

This section provides the opportunity for programs to share and discuss assessment activities conducted in **AY 2021-2022**. 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 2021-2022?

- My program assessed SLOs in AY 2021-2022

Please list the SLOs examined

- SLO #1: An ability to analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
- SLO #2: An ability to 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): An ability to 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 Interpreted and made meaning of findings for direct evidence 	<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 	
<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.) 		
<ul style="list-style-type: none"> Implemented closing the loop improvement strategies to improve SLO achievement 		

Findings			
N of Artifacts	Criterion Used	Goal Met	Eye-opening Result
156	70%	Yes	

Student Learning Outcome (SLO): An ability to 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 Interpreted and made meaning of findings for direct evidence 	<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
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<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.) 		
<ul style="list-style-type: none"> Implemented closing the loop improvement strategies to improve SLO achievement 		

Findings			
N of Artifacts	Criterion Used	Goal Met	Eye-opening Result
167	70%		

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 Interpreted and made meaning of findings for direct evidence 	<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
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<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.) 		
<ul style="list-style-type: none"> Implemented closing the loop improvement strategies to improve SLO achievement 		

Findings			
N of Artifacts	Criterion Used	Goal Met	Eye-opening Result
113	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 Interpreted and made meaning of findings for direct evidence 	<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
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<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.) 		
<ul style="list-style-type: none"> Implemented closing the loop improvement strategies to improve SLO achievement 		

Findings			
N of Artifacts	Criterion Used	Goal Met	Eye-opening Result
162	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 Interpreted and made meaning of findings for direct evidence 	<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
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<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.) 		
<ul style="list-style-type: none"> Implemented closing the loop improvement strategies to improve SLO achievement 		

Findings			
N of Artifacts	Criterion Used	Goal Met	Eye-opening Result
176	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 Interpreted and made meaning of findings for direct evidence 	<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
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<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.) 		
<ul style="list-style-type: none"> Implemented closing the loop improvement strategies to improve SLO achievement 		

Findings			
N of Artifacts	Criterion Used	Goal Met	Eye-opening Result
176	70%	Yes	

IMPROVING THROUGH ASSESSMENT

Overall, what best describes how the program used the results in 2021-2022? Select all that apply.

- Assessment procedure changes (SLOs, curriculum matrix, rubrics, evidence collected, sampling, communications with faculty, etc.)
- Course-level changes (e.g., syllabus, content, pedagogy)
- Program curricular changes (e.g., course sequencing, changes to required curriculum, added or deleted courses)

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
- A committee of program/department faculty
- 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 2021-2022 so that others may learn from your experiences.

In 2021-22, we implemented the modified assessment plan based on ABET's visit and followed up on several actions that we adopted to help remove the weaknesses mentioned in the ABET report. We also submitted an interim report to ABET.

CPP's GI2025 goals What assessment-related efforts 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.) Undergraduate programs may wish to refer to CPP's GI2025 goals. (Not Mandatory)

We plan to assess our PEO and align them better with the campus' diversity, equity, and inclusion (DEI) efforts.

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

- Yes:

Please describe how the SLOs for the certificate/credential are assessed. Are they integrated into or separate from the degree program's assessment work, etc.?

It's not part of the BS program. They are separated from the degree program's assessment work.

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