Annual Assessment Report 2021-2022

MS Systems Engineering

Industrial & Manufacturing Engineering

College of Engineering

CONTACT
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Name of Person Completing Report Saeideh Fallah Fini

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.
- Published in alternative place. Please specify: Program Canvas Page, I also want to publish on the CPGE website

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?
- 4

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: Students will apply a "systems thinking" perspective as a holistic approach for analysis of complex systems
- SLO #2: Students will Apply appropriate systems engineering methodologies, tools, and techniques to interdisciplinary problems
- SLO #3: Students will Solve complex systems engineering problems (i.e., identify the problems, diagnose the causes of the problems, synthesize solutions, compare solutions in organizational as well as the broader global, economic, environmental, and societal context)
- SLO #4: Students will Effectively communicate the knowledge, ideas, and results to broader audience using the appropriate methods

Student Learning Outcome (SLO): Students will apply a "systems thinking" perspective as a holistic approach for analysis of complex systems

Assessment Activities	Evidence Used	Evaluation and Interpretation of Evidence
• Created/modified/discussed assessment procedures (e.g., SLOs, curriculum matrix, mechanism to collect student work, rubric, survey, etc.)		
• Collected direct evidence (e.g., student work, exam items, etc.)	• Thesis or dissertation (graduate-level only)	

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

Student Learning Outcome (SLO): **Students will Apply appropriate systems engineering methodologies, tools, and techniques to interdisciplinary problems**

Assessment Activities	Evidence Used	Evaluation and Interpretation of Evidence
• Created/modified/discussed assessment procedures (e.g., SLOs, curriculum matrix, mechanism to collect student work, rubric, survey, etc.)		
• Collected direct evidence (e.g., student work, exam items, etc.)	• Thesis or dissertation (graduate-level only)	

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

Student Learning Outcome (SLO): **Students will Solve complex systems engineering problems (i.e., identify the problems, diagnose the causes of the problems, synthesize solutions, compare solutions in organizational as well as the broader global, economic, environmental, and societal context)**

Assessment Activities	Evidence Used	Evaluation and Interpretation of Evidence
• Created/modified/discussed assessment procedures (e.g., SLOs, curriculum matrix, mechanism to collect student work, rubric, survey, etc.)		
• Collected direct evidence (e.g., student work, exam items, etc.)	• Thesis or dissertation (graduate-level only)	
• 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
7	percentage of students that meet or exceed a minimum level for SLO	No	Students had difficulty with information literacy and with referencing other people's work properly

Student Learning Outcome (SLO): Students will Effectively communicate the knowledge, ideas, and results to broader audience using the appropriate methods

Assessment Activities	Evidence Used	Evaluation and Interpretation of Evidence
• Created/modified/discussed assessment procedures (e.g., SLOs, curriculum matrix, mechanism to collect student work, rubric, survey, etc.)		
• Collected direct evidence (e.g., student work, exam items, etc.)	• Thesis or dissertation (graduate-level only)	

Findings			
N of Artifacts	Criterion Used	Goal Met	Eye-opening Result
7	percentage of students that meet or exceed a minimum level for SLO	Yes	Students need a lot of help with written communication

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.)
- Other, please explain: We added a couple of features to our program which we did not have before, hoping that we can do a better job in getting feedback of our students such as: Student evaluation survey for each class, exit survey, alumni survey.

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.
- A committee of program/department faculty

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.
We reviewed and modified the PLO and SLO. My impression is that the modified PLO and SLO better represent what should be expected from the program.

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 have not done this yet but based on the training I got over the summer and Fall, I aim to implement a GRADE MAP where we identify the race/ethnicity of students and their associated grades to see if there is any race/ethnicity gap in our classes, the reason behind it, and ow we can address it.

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 <u>here</u>. 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