Outcome CS-a. Be exposed to a variety of programming languages and systems, and will be proficient in programming in at least two languages.

Course	Performance indicators
CS 310	Discuss the evolution and history of programming languages.
CS 350	Program run-time environments: processes, synchronization primitives.
CS 350	Design and implement programs in programming language C.
CS 210	Design and implement programs in the programming language JAVA.
CS 210	Read and understand SQL commands.
CS 450	Carry out the development of a significant OS implementation project using the C language.

Tools used: Undergraduate In-Course Program Outcomes Assessment form.

Data Collection: The data are collected every semester based on the course offerings.

Frequency of data collection: The data are collected every time courses are taught.

Data Analysis: Every course evaluated by embedded assessments every 4th offering if offered twice an academic year, 3rd offering if offered once an academic year and every other offering if offered less than every academic year.

Closing the loop: This outcome is subject to review every year based on performance criteria and metrics and specific action items are developed, if necessary, to revise the content of the courses. The analyzed data are presented separately to the following groups in meetings.

    a) Faculty

b) Advisory Board

Performance criteria and metrics:

a) Embedded course assessments administered in CS 210/310/350/450 with average grades >= C on assignments and test which cover the performance indicators.

b) Final grades in selected CS courses must be >= C

c) Student responses to relevant question on graduating senior exit surveys must be >= 3.5/5

Assessment Tool:

Undergraduate In-Course

Program Outcomes Assessment Form

Lane Department of Computer Science and Electrical Engineering
Undergraduate In-Course Program Outcomes Assessment Form

Course:_____ Semester:_____ Instructor:_____

Assessment of student preparedness for this course at the start of this term:

At the **beginning** of this term:	Nearly 100%	About 75%	About 50%	About 25%	N/A
1. Students had the prerequisite **math** skills.					
2. Students had the prerequisite **laboratory** skills.					
3. Students had the prerequisite **problem solving** skills.					
4. Students had the prerequisite **design** skills					
5. Students were capable of using the necessary **tools** (e.g. hardware/software, etc.)					
6. Students had the necessary **programming** skills.					
7. Students had the necessary **communication** skills.					

Course Learning Outcomes * (assessed within course)	How/Where Assessed**	Student Scores			
		Min Pass %	High Score %	Class Avg %	Grade ***
1.					
2.					
3.					
4.					

* Indicate which program outcome each course outcome maps into.
** For example "exam 1, problem 1"
*** For **Grade** give the class average on an "A=4.0, B=3.0" basis.

Recommendations: Include which outcomes require more attention within the course to improve student performance, and how the course should be altered in the future to improve results.

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