

# Program and Institutional SLO Assessment at Columbia College

## Overview

Columbia College utilizes eLumen software to record the results of assessment of student learning outcomes across the college. The most prevalent direct assessment is done at the course level by assessing Course Student Learning Outcomes (CSLOs). The results of these course-level assessments are “rolled up” and used to assess our Program Student Learning Outcomes (PSLOs) and Institutional Student Learning Outcomes (ISLOs). The purpose of this document is to describe how this process works using some relatively simple examples.

The eLumen software is designed to integrate three planning instruments:

1. Course SLO Assessment Schedules
2. Program Pathways/Awards – Courses required for Degrees, Certificates of Achievement, and Skills Attainment Certificates
3. Program SLO and Institutional SLO Assessment Maps

## Course SLO Assessment

For each course at the college, faculty members have identified two to four Course SLOs, representing the primary, overarching student learning outcomes expected of successful students. In some low-unit courses, perhaps one CSLO is sufficient, while in more complex courses, additional CSLOs may have been identified.

Each course’s SLOs are assessed at least once every two or three years on a cyclical basis, and the results are entered into the eLumen system. For example, the **Course SLO Assessment Schedule** for Courses A, B, C, and D might look like the table below, where an X indicates that the course is to be assessed in the slated semester. Notice that Course D is on a three-year cycle while the others are on a two-year cycle, creating an intricate pattern of assessment of courses over time. Tracking these assessments manually is extremely challenging across all courses at the college. When fully functional, eLumen software will simplify and automate this process.

Course SLO Assessment Schedule													
Course	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6		Assessment Cycle
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	
A	X				X					X			2-year
B			X				X				X		2-year
C				X				X				X	2-year
D					X						X		3-year

In the term when a course is scheduled to be assessed, faculty members teaching the course should meet and confer with one another, develop a consistent method of assessment for each CSLO, and assess *all* students across *all* sections of the course on *all* of that course’s CSLOs. That is, assessment for a given course means, “*All CSLOs for all students in all sections that term.*” eLumen then presents each faculty member with his or her class roster and a simple interface to record the results of the assessment on a per-student basis. In addition, each faculty member is provided an opportunity to enter a qualitative reflection on the performance of his or her students on the CSLOs. Together across all sections of a course, these data provide a one-semester snapshot of student performance on the course’s CSLOs. To measure change over time, the course is assessed two or three years later and the results are compared with the previous snapshot. Moreover, as of January 2017, faculty will gather each semester to review the entire collection of CSLO results captured that term, seeking common themes and suggestions for improvement informed by these data.

**Program Pathways/Awards**

Program pathways are also referred to as “academic programs,” “academic awards,” “awards,” or, simply, “programs.” They list the collection of required and elective courses to earn a specific degree or certificate. These pathways represent the essential patterns of coursework followed by our students.

**Program SLOs**

For each program pathway, faculty members have carefully considered expected student learning across the body of coursework involved and authored two to four Program SLOs. (Some brief skills attainment certificates have a single PSLO.) These PSLOs represent the primary high-level expectations of a student who has successfully completed the program pathway.

**Consider the following illustrative example:**

**A Sample Program Pathway**

**Program name:** Certificate in SLO Mastery

Course A	3 units
Course B	4 units
Course C	3 units
<u>Course D</u>	<u>3 units</u>
<b>Total Program</b>	<b>13 units</b>

**Program Student Learning Outcomes:**  
 Upon satisfactory completion of this program, the student should be prepared to:

1. Do *this*.
2. Do *that*.
3. Do *the other thing*.

In the example, Courses A, B, C, and D are required components of the imaginary “Certificate in SLO Mastery” program pathway. This pathway identifies three PSLOs, each representing something a student should be prepared to do upon completion of the program. As discussed above, each course in the program has two to four CSLOs.

***Here’s the most important idea:***

Because completion of a program pathway represents successful completion of the courses, it makes sense that the results of *Course SLO* performance on these courses should inform our understanding of these *Program SLOs*.

eLumen software is utilized to support implementation of this idea across the institution.

## Program SLO Assessment

Data from CSLO assessments “roll up” to the PSLO level. Doing so requires a clearly delineated program pathway, carefully crafted CSLOs and PSLOs, and a Program SLO Assessment Map that instructs the system as to which CSLO results to roll up to which PSLO. Using these maps, snapshots of PSLO data can be reported at any time.

Continuing the illustrative example, the **Program SLO Assessment Map** shown below indicates which CSLOs provide information about PSLO mastery. For instance, the first line shows that a student’s success on course A’s first CSLO, aka CSLO A-1, indicates that (s)he has mastered some portion of the first PSLO, aka PSLO 1. In the second line, you can see that CSLO A-2 provides information about a student’s abilities with both PSLO 2 and PSLO 3. The reader can continue down through the chart to see additional mappings.

Program SLO Assessment Map				
Course	Course SLOs	PSLO 1	PSLO 2	PSLO 3
A	CSLO A-1	X		
	CSLO A-2		X	X
	CSLO A-3	X		
B	CSLO B-1	X	X	
	CSLO B-2		X	X
C	CSLO C-1			X
	CSLO C-2		X	
	CSLO C-3	X		X
D	CSLO D-1	X		
	CSLO D-2			X
	CSLO D-3		X	X
	CSLO D-4		X	

Each program’s PSLOs are assessed every two years, according to a schedule designed to sync with overall Program Review. eLumen software compiles all the data for those CSLOs that map to the particular PSLO. Faculty members overseeing the award are provided this rolled-up PSLO data and asked to interpret student learning in relation to this PSLO in light of the CSLO data. For example, in the Program SLO Map provided, CSLOs A-1, A-3, B-1, C-3, and D-1 provided data regarding student performance on PSLO 1. Suppose the results of these CSLOs are as shown below.

1. CSLO A-1: 50 students assessed, 42 succeeded, for an 84% success rate
2. CSLO A-3: 50 students assessed, 35 succeeded, for a 70% success rate
3. CSLO B-1: 86 students assessed, 75 succeeded, for an 87% success rate
4. CSLO C-3: 28 students assessed, 13 succeeded, for a 46% success rate
5. CSLO D-1: 91 students assessed, 61 succeeded, for a 67% success rate

In addition to these raw numbers, eLumen captures the qualitative reflections entered at the section and/or course level at the time of assessment.

Consequently, the results of this PSLO assessment consist of:

1. Five separate CSLO *quantitative* measures.
2. A CSLO *qualitative* response for each course assessed.
3. A grand total of 305 student assessments, 226 of whom succeeded, for a 74% success rate overall.

The faculty overseeing this program are then charged with synthesizing these results for each PSLO and ultimately determining, “What do all of these collective CSLO results tell me about this PSLO?”

Furthermore, looking across all three PSLOs for this program, they discuss and determine, “What do all of these PSLO results together tell us about student learning in this program? What can we do to improve these results for our students?”

### Visualizing the eLumen “Rolling Up” Process

The process of rolling up CSLO assessment to assess PSLO performance can be visualized as a combination of a coin-sorting machine and a jelly bean dispenser. Like a coin-sorting machine, faculty drop all of their per-student CSLO assessment data into the system. Then internal mechanisms sort those assessments, replicating data as necessary, and filling each “PSLO bin” with the appropriate CSLO data to consider. Much like the jelly bean dispenser shown below, faculty members simply open the slot associated with a particular PSLO and out comes a bag full of delicious data to chew on. (And it’s better to chew on yummy jelly beans than dirty coins!) For a video explanation of how all this works, see <https://www.youtube.com/watch?v=qgMFxOMADzU>.



### Assessment of Institutional SLOs and Disaggregating for Equity Gaps

The college has also established a broad set of Institutional SLOs. Much like the Program SLO Assessment Map above, each course’s CSLOs have been mapped to the college’s ISLOs. When ready, eLumen’s internal mechanisms will aggregate the appropriate CSLO data to inform each ISLO, calculate summary data, and provide for the opportunity to record a reflection on student performance on each ISLO.

Because student rosters are augmented with essential demographic and cohort data, eLumen will also enable the college community to *disaggregate* student performance across a broad variety of learning outcomes, identify gaps in student learning, and work to close those equity gaps.