Program Student Learning Outcomes (PSLOs) Handbook

What is a Program?

For the purposes of Program Student Learning Outcomes (PSLOs), the term "academic program" refers to degrees or certificates. Each degree or certificate is required to have their own PSLOs, which are listed on the active Program Outline of Record (POR) in eLumen. Instructional departments do not need to have broad PSLOs that encompass all of their degrees and certificates.

How often do PSLOs need to be assessed?

At least one PSLO should be assessed each year, and all PSLOs should be assessed within the Program Review Cycle. The results of direct PSLO assessment should be entered into eLumen and data reports should be included in the department's program review. To ensure that all PSLOs are assessed, departments need to develop an assessment schedule.

How do we Assess PSLOs?

There are mays ways to assess Program Student Learning Outcomes, and as with CSLOs, there is no one right way to determine how many students completing degrees or certificates achieve specific PSLOs. Select Assessing PSLOs: for more information.

How do we write PSLOs?

Use Backwards Design: When revising or creating PSLOs, departments should start by identifying what students need to know and be able to do for employment and/or to qualify for further educational opportunities. For detailed instructions on how to write strong PSLOs, please select Developing PSLOs:

How many PSLOs should we write?

For guidelines, select How many PSLOs do we need?

How do we enter PSLOs in eLumen?

PSLOs are entered on the Program Outline of Record (POR) in eLumen. All changes must be made by revising the POR and sending it through the curriculum approval process. Visit the eLumen page on the Curriculum Committee web site and/or contact the Curriculum coordinator for guidance on how to revise a POR.

How do we map PSLOs in eLumen?

There are two ways to map:

1) When creating or revising Program Outlines of Record (PORs) in Program Builder. Select this video for instructions.

2) From a "Discipline Coordinator "role in the eLumen the SLOs & Assessments tab. Select this video for instructions.

Why must we map PSLOs?

Select [Why must we map PSLOs to CSLOs?](#) for details.

What is the PSLO cycle?

Select [Program-Level Student Learning Outcomes Cycle](#) for details.

Program-Level Student Learning Outcomes Cycle

Program Student Learning Outcomes (PSLOs) are an important part of a regular process designed to foster continuous quality improvement in all academic programs.

PSLOs represent what the students should know and/or be able to do upon finishing an academic program, and they should align with qualifications for employment and/or further educational opportunities. All PSLOs for each degree and certificate must be listed in eLumen on the Program Outline of Record (POR). PSLOs must be mapped to the Course Student Learning Outcomes in the Program. In addition, the PSLO cycle (described below) must be completed for all PSLOs within each Program Review cycle.
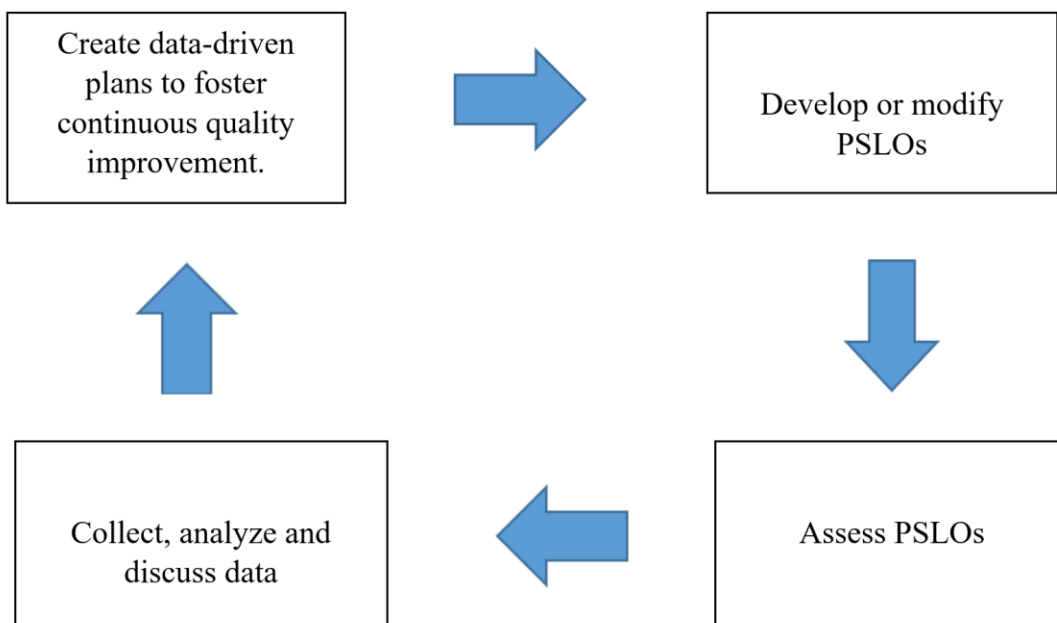
What constitutes an academic program?

For the purposes of Program Student Learning Outcomes (PSLOs), the term "academic program" refers to degrees or certificates. Each degree or certificate is required to have their own PSLOs, which are listed on the active Program Outline of Record (POR) in eLumen. Instructional departments do not need to have broad PSLOs that encompass all of their degrees and certificates.

Developing PSLOs:

Use Backwards Design: When revising or creating PSLOs, departments should start by identifying what students need to know and be able to do for employment and/or to qualify for further educational opportunities. According to Guided Pathways guidelines, PSLOs need to be "aligned with the requirements for success in the further education and employment outcomes targeted by each program."

All outcomes need to be measurable and should address one of following four areas:
1. **Knowledge:** facts, concepts, principles/theories, etc.
2. **Skills/abilities:** information literacy, thinking strategies, computational skills, communication skills, collaboration skills, leadership skills, etc.
3. **Attitudes/characteristics:** open-mindedness, love of knowledge, diligence, integrity, social responsibility, etc.
4. **Habits of mind:** arts appreciation, proficiency in creative procedures, creativity, etc.

When creating SLOs be sure to **use action verbs** that result in observable behavior that can be and measured. Avoid verbs that call for internal behavior that is hard to measure, such as "appreciate, aware of, familiar with, understand..."

For more guidance on verb selection, refer to the **"Verbs for developing SLOs"** page.

When developing measurable outcomes, pay attention to the ABCs of measurable outcomes.

Actor – To whom the outcome relates
Behavior – What we expect the actor to know or be able to do
Context – Circumstances under which learning will take place

Each measurable outcome should contain specific information about the A, B, and C.

For example, Psychology has the following PSLO: "Upon completion of the program, students will be able to articulate similarities and differences in human behavior among cultures, times, and environments, demonstrating an understanding of cultural pluralism and knowledge of global issues as they relate to human behavior."

Actor – Students
Behavior – Articulate similarities and differences; demonstrating an understanding of and knowledge of
Context – Upon completion of the program,

How many PSLOs do we need?

Each degree and certificate should have between one and five PSLOs, depending on how many units are in the program. Determining the exact number needed depends on the number of over-arching learning goals involved for each degree or certificate. Some certificates or degrees might truly develop only one skill applied in different contexts throughout the program. Others, have multiple strands of over-arching learning goals. It is up to the content experts in each department

to determine the best number of PSLOs for each degree or certificate, but all PSLOs must be assessed within each Program Review Cycle. Below are the guidelines recommended by the Outcomes committee.

Degrees should include 3-5 PSLOs, unless this is not practical based on program goals and objectives.
Certificates with 30-59.5 units should include 3-5 PSLOs
Certificates with 18-29.5 units should include 3-4 PSLOs
Certificates with 12-17.5 units should include 2-3 PSLOs
Certificates with 3-11.5 units should include 1-2 PSLOs

Who is responsible for developing PSLOs?

In determining PSLOs, a college department should foster collaboration among its entire faculty. All full-time faculty (and where feasible, adjuncts) within a college's department should be included and participate meaningfully in the PSLO development process. Best practices encourage faculty to invite those who have a first-hand view of the roles for which students are preparing, such as colleagues from referring and receiving educational institutions, potential employers, and former students. These advisory groups can often offer valuable insight in developing a program's SLOs.

How do we enter PSLOs in eLumen?

PSLOs are entered on the Program Outline of Record (POR) in eLumen. All changes must be made by revising the POR and sending it through the curriculum approval process. Visit the eLumen page on the Curriculum Committee web site and/or contact the Curriculum coordinator for guidance on how to revise a POR.

Do PSLOs need to be revised?

As with CSLOs, PSLOs are not meant to be static. PSLOs are subject to periodic revision in order to maintain currency and relevance. If a long-standing PSLO continues to be relevant and aligns with qualifications for employment and/or further education in the field, there is no requirement to change it.

Mapping Program Student Learning Outcomes (PSLOs)

For each degree or certificate, departments should develop Course Student Learning Outcomes (CSLOs) that map directly to the PSLOs in the program. **Each course in the program should have at least one CSLO that maps to at least one PSLO.** Ideally, most CSLOs will map to at least one PSLO.

How do we map PSLOs to CSLOs in eLumen?

There are two ways to map PSLOs in eLumen:

1) When creating or revising Program Outlines of Record (PORs) in Program Builder. Select this video for instructions.

2) From a "Discipline Coordinator "role in the eLumen the SLOs & Assessments tab. Select this video for instructions.

Why must we map PSLOs to CSLOs?

We use backwards design to ensure students reach Program Learning Outcomes. We start by identifying what students should know and/or be able to do by the end of the program, and then we use this information to determine what students should know and/or be able to do by the end of each course. In this way, Course Learning Outcomes will align to Program Learning Outcomes.

Although students will not complete every course offered in a program, we deliberately design programs to ensure that all students get the instruction they need to reach the PSLOs. In order to make certain every student learns what they need to know, we map PSLOs to CSLOs. Also, when CSLOs are mapped to PSLOs in eLumen, we can automatically get "implied" PSLO assessment data when CSLOs are directly assessed each semester.

Assessing PSLOs:

There are mays ways to assess Program Student Learning Outcomes, and as with CSLOs, there is no one right way to determine how many students completing degrees or certificates achieve specific PSLOs.

Implied Assessment vs. Direct Assessment

When PSLOs are mapped to CSLOs in the program, "implied" assessment data is automatically collected in eLumen when Course SLOs are assessed each semester. While implied assessment data is better than no data, **direct assessment data is more reliable** and, therefore, preferred.

Five steps to Direct Assessment: There are five steps in the assessment process, as outlined in the table below. If followed correctly, these steps will lead to continuous quality improvement and increased student success.

Step	Definition	Example
1. Develop assessment method	The instrument, process, or activity developed to collect data about the PSLO (s).	Analyze collective portfolios created by all students earning a degree in English.
2. Establish criteria	Establish the criteria that will be used to determine if the PSLO has been successfully met.	A rubric that clearly indicates what is expected of student work in their portfolios. The rubric clearly defines results that exceed,

		meet, are moving towards, or do not meet expectations.
3. Record Assessment Data	Assess the PSLO (s) using the criteria and enter data in eLumen.	A data-entry rubric is created in eLumen and attached to the program's capstone course. PSLO data for all students enrolled in the course is recorded in eLumen.
4. Establish a standard	Establish the minimum that must be met to consider the aggregate results of the assessment method as meeting expectations.	In order for the aggregate assessment results to be considered successful, the department agrees 70% of all the students will meet or exceed expectations.
5. Close the loop: discuss results and develop a plan for continuous quality improvement	Discuss assessment results, reach conclusions about them, develop a plan for change, and implement the plan.	The established standard was not met. It is possible that students can complete the degree without getting specific instruction related to this outcome—we need to redesign degree requirements and/or revise Course Outlines of Record to ensure students have an opportunity to achieve this PSLO.

Preferred PSLO Direct Assessment Methods:

Collective Portfolios: At the beginning of their program, students create a learning portfolio in Canvas, and as they progress through the program, they assemble samples of their work from various classes. Faculty use the "collective" samples to assess specific program learning outcomes. Portfolios can be assessed by using scoring rubrics; expectations should be clarified before portfolios are examined. [Select this link for more information about how to create portfolios in Canvas.](#)

Capstone Course Assessment: Program Learning Outcomes can be assessed using assignments, projects, or exams from a course that all students in the program must take towards the end of the course sequence.

Exit or License Exam: Students finishing a program may take a culminating exam. Data obtained can address strengths and weaknesses of an institution or program and/or assess relevant concepts, theories, or skills.

Additional Assessment Options for Consideration:

*Exit Survey or Interview: Students leaving the college, generally graduating students are interviewed or surveyed to obtain feedback. Data obtained can address strengths and weaknesses of an institution or program and or to assess relevant concepts, theories, or skills.

*Focus Groups: Are a series of carefully planned discussions among homogeneous groups of 6-10 respondents who are asked a carefully constructed series of open-ended questions about their beliefs, attitudes, and experiences. The session is typically recorded and later the recording is transcribed for analysis. The data is studied for major issues and reoccurring themes along with representative comments.

*Interviews: Are conversations or direct questioning with an individual or group of people. The interviews can be conducted in person or on the telephone. The length of an interview can vary from 20 minutes to over an hour. Interviewers should be trained to follow agreed-upon procedures (protocols).

Aggregating data from course-level SLOs: As explained above, this method is automatically recorded in eLumen as "implied" data when PSLOs are mapped to CSLOs. This method may be appropriate for programs that serve a broad population of students, and thus may not have a well-defined set of "graduates" or "majors." Although this method does not require developing a direct assessment method, it does require careful "mapping" of all the CSLOs in the courses offered in a program to the PSLOs for that program. *Using only course-level SLO mapping to assess PSLOs is discouraged. Whenever possible, it is recommended that faculty develop and assess direct PSLO assessment methods to ensure continuous quality improvement.*

* Source: Allen, Mary; Noel, Richard, C.; Rienzi, Beth, M.; and McMillin, Daniel, J. (2002). Outcomes Assessment Handbook. California State University, Institute for Teaching and Learning, Long Beach, CA.

How do we enter Direct PSLO Assessment data in eLumen?

There are two ways to enter PSLO assessment data in eLumen:

1) **Capstone Course:** If the program has a "capstone course" the student roster in this course can be used by creating a data-entry rubric and "planning" it to the course.
2) **Program Roster:** If the program does not have a capstone course, a student roster must be uploaded into eLumen. Then, a data-entry rubric can be created and attached to the program roster. Contact your SLO coordinator for more information about uploading program rosters in eLumen.

How often do PSLOs need to be assessed?

At least one PSLO should be assessed each year, and all PSLOs should be assessed within the Program Review Cycle.

The results of direct PSLO assessment should be entered into eLumen and data reports should be included in the department's program review. To ensure that all PSLOs are assessed, departments need to develop an assessment schedule. For example, Psychology has developed the following PSLO schedule.

Program SLO	Institutional SLO	Assess When?
1. Analyze psychological data, information, and theories	Critical Thinking	Spring 17
2. Apply psychological principles to the development of interpersonal, occupational and social skills and life-long personal growth.	Critical Thinking	Spring 16
3. Draw reasonable conclusions in relation to human behavior from the data/information/theories	Scientific Awareness	Spring 15
4. Articulate similarities and differences in human behavior among cultures, times, and environments, demonstrating an understanding of cultural pluralism and knowledge of global issues as they relate to human behavior	Personal & Social Responsibility	Spring 19
5. Demonstrate respect for the psychological differences in opinions, feelings and values of others in one's interactions	Personal & Social Responsibility	Spring 18

What are CSLOs and ISLOs?

Course-Level Student Learning Outcomes (CSLOs) – CSLOs represent what the **students should know and/or be able to do upon** finishing a particular course. This includes themes, concepts, issues, and skills taught in a particular course through demonstration, practice, and feedback. CSLOs assess the **impact of a particular course**. ALL courses at YC need to have at least one CSLO.

Institutional-Level Student Learning Outcomes (ISLOs) - ISLOs represent a broad set of outcomes **students should achieve** upon completing their educational goals at the Yuba College. Students achieve these outcomes through instructional and non-instructional contact. Examples of non-instructional contact include student services such as financial aid, counseling, and DSPS. ISLOs assess the impact of the institution. There are eight ISLOs