CERRITOS COLLEGE

2023-24 LEARNING OUTCOMES ASSESSMENT HANBOOK

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Learning Outcomes and Assessment Overview

Accrediting Commission for Community and Junior Colleges (ACCJC) Standards

Cerritos College is accredited by the Accrediting Commission for Community and Junior Colleges (ACCJC). Several of the current ACCJC Standards[1] specifically address student learning (e.g., Standard I.B, Standard IIA). In particular, Standard I.B.5, I.B.6, and II.A.3 outline specific expectations related to SLO assessment and the analysis of assessment data:

> **Standard I.B.5.** *The institution assesses accomplishment of its mission through program review and evaluation of goals and objectives, student learning outcomes, and student achievement. Quantitative and qualitative data are disaggregated for analysis by program type and mode of delivery.*

> **Standard I.B.6.** *The institution disaggregates and analyzes learning outcomes and achievement for subpopulations of students. When the institution identifies performance gaps, it implements strategies, which may include allocation or reallocation of human, fiscal and other resources, to mitigate those gaps and evaluates the efficacy of those strategies.*

> **Standard II.A.3.** *The institution identifies and regularly assesses learning outcomes for courses, programs, certificates and degrees using established institutional procedures. The institution has officially approved and current course outlines that include student learning outcomes. In every class section students receive a course syllabus that includes learning outcomes from the institution's officially approved course outline.*

The accreditation standards provide the foundation and guidelines for Cerritos College's process for assessing student learning outcomes. As a regionally accredited institution, Cerritos College adheres to all ACCJC standards regarding the outcomes assessment process.

Cerritos College Mission Statement

Cerritos College provides its diverse student population with high-quality, comprehensive instructional programs and support services through clear, equity-minded pathways to their educational goals. In doing so, the college develops culturally competent students with the knowledge, skills, and values that prepare them to be productive members of their local and global communities.

Student Learning Outcomes (SLO) Committee Mission Statement

The mission of the Student Learning Outcomes Committee is to assist Cerritos College's campus community in the ongoing assessment of Student Learning Outcomes through data analysis, research, resources, and current practices that lead to student success.

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[1] For the complete list of Accreditation Standards, please visit: https://accjc.org/wp-content/uploads/Accreditation-Standards_-Adopted-June-2014.pdf

Learning Outcomes at Cerritos College

At Cerritos College, all outcomes for courses, programs, and services are assessed. Results from learning outcomes assessment are used to inform data-driven curricular and pedagogical responses to optimize student success. In 2022-2023, Cerritos College has made several changes to define and assess CSLOs and PSLOs. In spring 2022, the SLO committee presented its recommendations to the faculty senate where a resolution to establish a three-year CSLO assessment cycle was approved. This three-year cycle clearly includes response to SLO data and closing the loop for continuous improvement. Although the SLO committee gave the recommendation that every SLO for every course section be assessed every semester, the recommendation also recognized other options that should not exceed a three-year cycle. This new three-year cycle specifies that all CSLOs will be assessed and analyzed though action plans within three-years at the most. In addition, during fall 2022, the SLO committee recommended, and the faculty senate approved, a PSLO cycle to be part of the Instructional Program Review (IPR) process.

Course-level (CSLO) Student Learning Outcomes

A course-level student learning outcomes (CSLO) statement succinctly describes what a student will know, be able to do, or be able to demonstrate upon completion of a course. Course-level student learning outcomes are not course objectives. Course objectives define the key elements that must be taught every time the course is taught. Course-level student learning outcomes must be observable, measurable, and able to be demonstrated. CSLOs are not necessarily linked to grades, which are a culmination of work completed in the course. Our CTX offers workshops on outcomes-based grading. Faculty decide how to best assess CSLOs, and methods may include (but are not limited to) final portfolios, student self-assessment, and/ or using outcomes in Canvas. Final CSO assessments are stored in eLumen so that data can be disaggregated and mapped to PSLOs and ISLOs.

Program-level (PSLO) Student Learning Outcomes

Program-level student learning outcomes (PSLO) statements focus on what students will be able to demonstrate or achieve upon completion of a certificate or degree program. PSLOs are developed by faculty and assessed on a regular cycle. PSLOs have been identified for each of the programs of study offered at the college. CSLOs are mapped to PSLOs in eLumen for assessment. As part of Guided Pathways, departments may also decide to include direct assessment in capstone courses and e-portfolios as well as surveys of graduates upon completion of the certificate or degree program. Outcome data such as job placement and annual income may also be used for PSLOs related to gainful employment. As part of this PSLO cycle, departments create action plans that respond to PSLO data from the PSLO performance reports that the SLO coordinator will provide. The SLO coordinator and IPR committee will provide support and guidance during the fourth year of the IPR cycle.

WASC Rubric for Assessing the Quality of Academic Program Learning Outcomes

Criterion	Initial	Emerging	Developed	Highly Developed
Comprehensive List	The list of outcomes is problematic: e.g., very incomplete, overly detailed, inappropriate, disorganized. It may include only discipline-specific learning, ignoring relevant institution-wide learning. The list may confuse learning processes (e.g., doing an internship) with learning outcomes (e.g., application of theory to real-world problems).	The list includes reasonable outcomes but does not specify expectations for the program as a whole. Relevant institution-wide learning outcomes and/or national disciplinary standards may be ignored. Distinctions between expectations for undergraduate and graduate programs may be unclear.	The list is a well-organized set of reasonable outcomes that focus on the key knowledge, skills, and values students learn in the program. It includes relevant institution-wide outcomes (e.g., communication or critical thinking skills). Outcomes are appropriate for the level (undergraduate vs. graduate); national disciplinary standards have been considered.	The list is reasonable, appropriate, and comprehensive, with clear distinctions between undergraduate and graduate expectations, if applicable. National disciplinary standards have been considered. Faculty have agreed on explicit criteria for assessing students' level of mastery of each outcome.
Accessible Outcomes	Outcome statements do not identify what students can do to demonstrate learning. Statements such as "Students understand scientific method" do not specify how understanding can be demonstrated and assessed.	Most of the outcomes indicate how students can demonstrate their learning.	Each outcome describes how students can demonstrate learning, e.g., "Graduates can write reports in APA style" or "Graduates can make original contributions to biological knowledge."	Outcomes describe how students can demonstrate their learning. Faculty have agreed on explicit criteria statements, such as rubrics, and have identified examples of student performance at varying levels for each outcome.

Alignment	There is no clear relationship between the outcomes and the curriculum that students experience.	Students appear to be given reasonable opportunities to develop the outcomes in the required curriculum.	The curriculum is designed to provide opportunities for students to learn and to develop increasing sophistication with respect to each outcome. This design may be summarized in a curriculum map.	Pedagogy, grading, the curriculum, relevant student support services, and co-curriculum are explicitly and intentionally aligned with each outcome. Curriculum map indicates increasing levels of proficiency.
Assessment Planning	There is no formal plan for assessing each outcome.	The program relies on short-term planning, such as selecting which outcome(s) to assess in the current year.	The program has a reasonable, multi-year assessment plan that identifies when each outcome will be assessed. The plan may explicitly include analysis and implementation of improvements.	The program has a fully-articulated, sustainable, multi-year assessment plan that describes when and how each outcome will be assessed and how improvements based on findings will be implemented. The plan is routinely examined and revised, as needed.
The Student Experience	Students know little or nothing about the overall outcomes of the program. Communication of outcomes to students, e.g. in syllabi or catalog, is spotty or nonexistent.	Students have some knowledge of program outcomes. Communication is occasional and informal, left to individual faculty or advisors.	Students have a good grasp of program outcomes. They may use them to guide their own learning. Outcomes are included in most syllabi and are readily available	Students are well-acquainted with program outcomes and may participate in creation and use of rubrics. They are skilled at self-assessing in relation to the outcomes and

			in the catalog, on the web page, and elsewhere.	levels of performance. Program policy calls for inclusion of outcomes in all course syllabi, and they are readily available in other program documents.

Institution-level (ISLO) Student Learning Outcomes

Cerritos College has identified a set of core competencies which represent a broadly defined knowledge base and/or set of skills that students are expected to demonstrate as a result of their overall educational experience at the college. CSLOs are mapped to ISLOs in eLumen, and the college collaborates campus-wide to identify and regularly assess these institution-level learning outcomes (ISLOs). The SLO committee evaluates ISLOs data for at least one ISLO each semester and makes recommendations based on this data.

The current ISLO statements are presented below:

Personal Knowledge and Responsibility
Students will develop the necessary attitude to define, maintain and complete their personal educational goals. They will learn to work independently to accomplish personal goals toward realizing their full potential academically, physically and emotionally whether for personal enrichment, further education or career advancement.

Communication and Expression
Students will demonstrate the ability to communicate effectively by expressing their thoughts, images and ideas both in written and oral forms. They will learn to engage actively in both verbal and non-verbal dialogue and discussion in an appropriate manner to communicate their ideas as well as evaluate the ideas of others.

Information Literacy
Students will demonstrate the ability to determine when gathering additional information is necessary. They will use appropriate resources and technologies to locate, evaluate and incorporate the information when developing supporting arguments and drawing conclusions. Students will also develop the ability to understand any legal, ethical or social issues regarding the use of information.

Critical Thinking and Quantitative Reasoning
Students will demonstrate the ability to recognize assumptions within an argument and actively and skillfully analyze underlying reasoning to develop a conclusion. They will apply qualitative

and/or quantitative analysis to solve problems, predict outcomes, test hypotheses, and explore alternatives in an ethical manner.

Civic Engagement

Students will develop values and beliefs in their role as a member of local, national and global societies to promote truth, fairness and goodwill to others. They will use the democratic process to further their values and beliefs and recognize and accept differing perspectives based on cultural diversity. They will engage in actions which provide service to others and have a positive impact on their local community.

General Education Philosophy

Cerritos College recognizes the value of an integrated, equity-minded general education curriculum as the core of the associate degree. The current institution-level learning outcomes (ISLOs) at Cerritos College represent the consolidation of the college's previous ISLO statements and General Education learning outcomes in 2018. Outcomes related to the college's general education curriculum are assessed via these broad, cross-curricular ISLOs; data from ISLO assessments inform analysis and action-planning related to general education.

Guiding Principles of SLO Assessment

Cerritos College embraces the guiding principles for the assessment of student learning outcomes set forth by the Academic Senate for the California Community Colleges (ASCCC) in 2010[2]. The principles are presented below:

1. Faculty have the primary responsibility for developing assessment tools and determining the uses of data that are collected, and therefore faculty engagement and active involvement in SLO assessment is essential.
2. Outcomes assessment is a process that should involve all appropriate participants at each level of the college, not just select groups or individuals.
3. SLOs and SLO assessment should be connected to the overall culture of the college vision or values statement, program review processes, and college curriculum, planning, and budgeting processes.
4. SLOs should be clearly mapped and aligned throughout a course sequence and among various levels (course, program, institution) to achieve the most efficient and effective assessment.
5. SLO assessment should be as authentic as possible and should be minimally intrusive to the educational experience of students and the instructional planning and performance of faculty.
6. Rather than relying on one assessment method for all situations, effective assessment may benefit from a variety of methods, even within a single course, that can respond to different learning outcomes, teaching styles, and student learning needs.

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[2] To access the complete Guiding Principles for SLO Assessment paper, please visit the ASCCC webpage at https://www.asccc.org/papers/guiding-principles-slo-assessment

7. Assessment data do not exist in a vacuum and must be analyzed alongside all other factors that may impact achievement outcomes.
8. SLO assessment processes and grading are different but mutually compatible activities and should complement rather than conflict with each other.
9. Effective outcomes assessment requires a college commitment to sufficient staff and resources.
10. SLO assessment of student learning outcomes is a process that is separate from faculty evaluation.

Differences Between Learning Outcomes and Course Objectives

Although learning outcomes are similar to course objectives, they differ in a significant way. Course objectives represent the *intent of instruction*, often expressed in terms of specific course content and/or instructional activities that will be presented. Generally, objectives are written to reflect specific subject matter that the course will address. In contrast, learning outcomes represent *what a student can demonstrate that they have learned*. Learning outcomes are written to reflect the knowledge, skills, and attitudes that can be observed and demonstrated as a function of the instruction provided.

Assessment Process at Cerritos College

Cerritos College encourages a collaborative decision-making process which allows faculty and staff to reflect on how well students are learning, as well as to develop and implement plans for improvement. SLO data is stored in eLumen where faculty use scorecards and reflection templates to provide quantitative and qualitative SLO data. Faculty may also use "Outcomes" in Canvas to assess learning outcomes and encourage student involvement in the process.

Improving Student Learning

Faculty at Cerritos College engage in the assessment of student learning outcomes (SLOs) to evaluate the extent to which students achieve the learning outcomes identified on the official Course Outline of Record (COR). Similarly, Student Services providers assess SLOs to evaluate student learning outside of the classroom. SLOs are regularly assessed based on established timelines, and assessment data are analyzed to inform decision-making at the course-, program-, and institutional-levels. Review of assessment data by faculty and staff may result in curricular and instructional changes, revised service delivery protocols, SLO-based program review recommendations, and data-driven annual planning requests. The SLO Committee encourages faculty and staff to include students in the interrogation, discussion, and assessment of learning outcomes.

Faculty and staff analyze individual SLO assessment results, as well as engage in dialogue about collective SLO data during department and division meetings. Formal assessment reports are completed to document student performance. Assessment report templates generally include a section for outlining specific action plans, which faculty and staff develop to address any identified performance gaps in student learning and/or to enhance the assessment process itself.

Actions such as implementing teaching innovations or non-instructional strategies to address barriers to learning specific content may result in enhanced student learning and increased student success. Faculty or staff may also recommend that learning outcome statements be revised for clarity or scope or to represent higher expectations in terms of student learning.

Assessment Cycle and Timeline

In spring 2022, the SLO committee presented its recommendations to the faculty senate where a resolution to establish a three-year CSLO assessment cycle was approved. Each department develops a three-year cycle that ensures that within this timeframe, all CSLOs for all courses will be assessed, reviewed, and responded to with action plans. At the end of the three-year cycle, departments will have analyzed the CSLO disaggregated data in eLumen and developed action plans to address any disproportionate impact revealed by the data and post those to eLumen. Action plans may include changes to pedagogy, curriculum, SLOs, PLOs, or integrated student support. Resource allocation requests related to SLO data are made in annual plans and comprehensive Instructional Program Review.

Timelines for SLO assessment are developed to document the deadlines for various steps in the assessment cycle:

1. Updating course syllabi with approved SLO statements as identified in the official Course Outline of Record (COR)
2. Designing and conducting SLO assessment tools and protocols
3. Inputting/uploading assessment results into the college's data management system, eLumen
4. Reviewing SLO assessment data and results of any previous action plans with department/program colleagues
5. Developing new action/improvement plans based on SLO assessments
6. Reviewing/revising SLO statements based on analysis of assessment data

Figure 1 represents the steps outlined above.

Figure 1. Steps in CSLO Assessment Cycle

Update course syllabi with approved SLOs (as applicable) → Design and conduct SLO assessments → Input/upload assessment data to eLumen → Review assessment data and results of previous action plans → Develop new action/improvement plans → Review/revise SLOs based on assessment data → Update course syllabi with approved SLOs (as applicable)
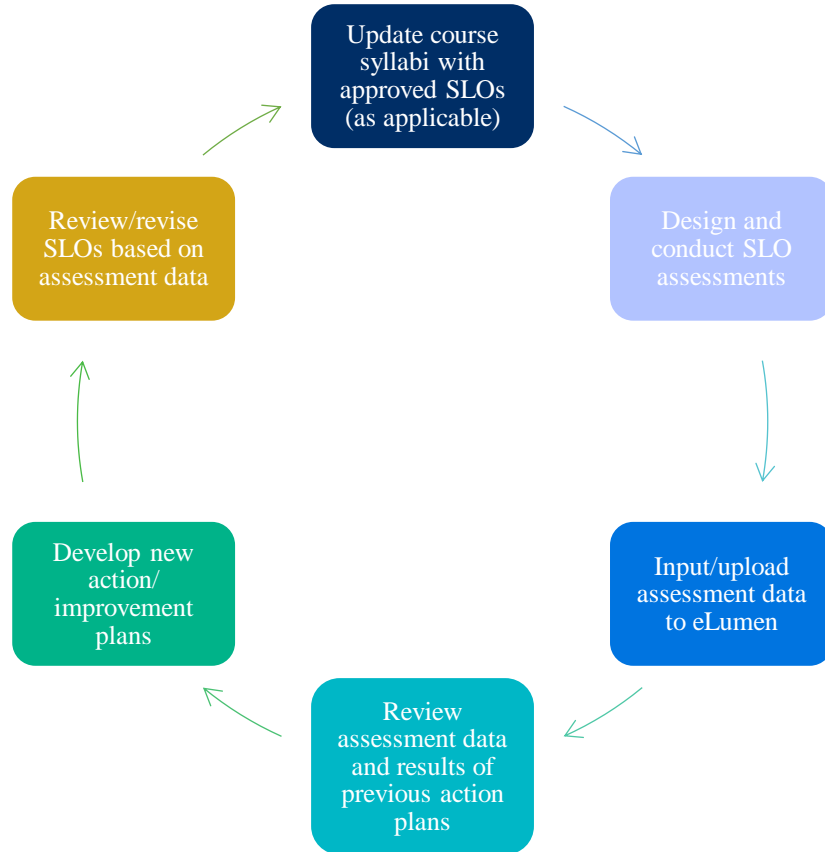
In fall 2022, the SLO committee recommended that PSLOs be assessed during the fourth year of the SLO process, and this was approved by faculty senate. The IPR process and SLO cycle clarify that one or more CSLOs are assessed every semester and that PSLOs are assessed and analyzed in the fourth year of the SLO cycle. Figure 2 represents how CSLOs and PSLOs are part of the IPR process.

Figure 2. Steps in the Program Review Assessment Cycle

SLO, PLO, and Curriculum Cycles & Comprehensive Program Review

6 Year Comprehensive Program Review
mapped to SLO, PLO, and Curriculum Cycles

SLOs: Years 1-6 (ongoing)

PLOs: Year 4 of the 6-year cycle

Curriculum Updates: Year 5 of cycle

Program Review: Year

1 or more SLOs assessed every semester according to the department's 3-year cycle

PLOs Assessed in year 4 of the 6-year program review cycle

Curriculum revised no later than year 5 of the 6-year program review cycle

Comprehensive Program Review is completed every 6 years. Reflections on the SLO & PLO assessments and related curriculum changes should be included in PR and connected to resource requests.

Annual Instructional Unit Plans: SLO & PLO assessments should be used in annual plans when making resource requests.

Comprehensive program review occurs every 6 years. The SLO Committee and Curriculum Committee are working to align SLO, PLO, and Curriculum cycles to support a meaningful program review cycle and to support programs to identify programmatic needs in order to request resources in their review cycle and connect those resource requests to outcomes assessments.

In spring 2023, the SLO Committee clarified the ISLO assessment cycle to analyze disaggregated data and assess at least one ISLO each semester according to the graph below. Figure 3 represents this cycle.

Figure 3. ISLO Assessment Cycle
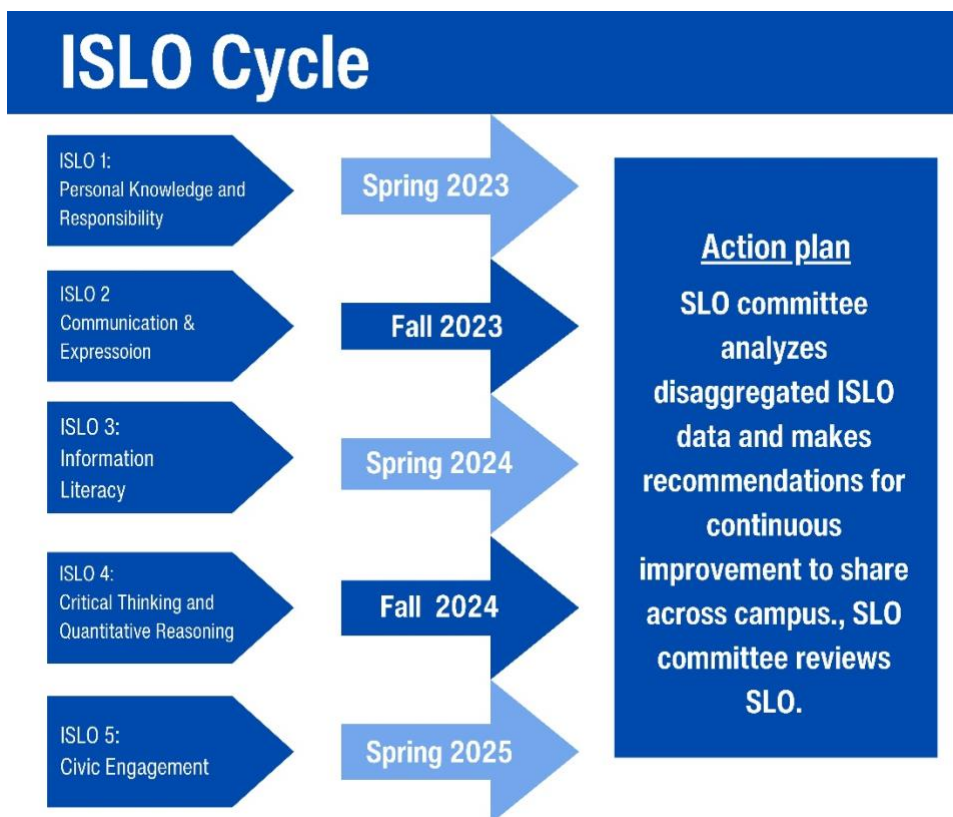
Faculty Roles and Responsibilities

Faculty play an essential role in the development and assessment of student learning outcomes (SLOs) at Cerritos College. Both full-time and part-time faculty participate in the campus-wide assessment of SLOs at Cerritos College as specified by the collective bargaining agreement (article 4.2) and ACCJC standards. Reporting SLO results according to our college's policy is considered part of faculty acceptance of responsibility and the maintenance of records. Division Deans and the Dean of Academic Affairs & Strategic Initiatives provide leadership and guidance to the general faculty regarding institutional (e.g., collective bargaining agreements) and regulatory (e.g., accreditation standards) expectations related to learning outcomes assessment. In collaboration with other faculty leaders (e.g., Student Learning Outcomes Committee Chair), they also provide support related to the functionality of the college's SLO data management system, eLumen.

Full-time faculty also participate in the three-year cycle as defined by their respective departments to close the loop and improve student learning. This not only includes assessing CSLOs but also responding to and analyzing SLO data with attention to disaggregated data. As part of the SLO cycle, faculty work together to identify and assess ways to improve student learning, for example through pedagogical innovation, resource requests, curricular changes, etc.

Department Chairs/Program Directors

As leaders of their instructional units or service areas, Department Chairs and Program Directors function as a resource of information for their peers. Within eLumen, Department Chairs will also have roles as Department Coordinators and have access to departmental and program reports. Department Chairs and Program Directors may also designate someone else in the department to assume this role. If Department Chairs would like to identify a designee, they may contact the SLO coordinator who can make that addition in eLumen. With regard to student learning outcomes (SLOs), they inform the departments of the SLO cycle for the department and provide guidance and answer questions to support faculty through the assessment process each semester.

General Information About SLO Assessment Process

For Cerritos College faculty, the primary sources of information about SLO assessment are the SLO coordinator and committee members, Department Chairs (or designees), and Division Deans.

Department chairs (or designee) provide support to their department in the following ways:
- Manage the SLO cycle for all courses in the department.

- Ensure SLOs are mapped to PLOs and ILOs in eLumen.

- Direct faculty to SLO resources when needed.

- Lead discussions in the department about disaggregated SLO data and curriculum revisions that may result from those discussions.

Division deans provide support to their division in the following ways:
- Review course syllabi for current SLOs.

- Connect department chairs to SLO assessment resources.

- Monitor SLO reporting and reach out to faculty who have failed to submit SLO data in eLumen to provide guidance and support in completing SLO assessment reporting.

- Provide time in division meeting to support departments in reviewing disaggregated SLO and PLO data and engaging in the process of continuous quality improvement.

Information Related to eLumen

Along with the Chair of the Student Learning Outcomes (SLO) Committee, the Department Chairs and Program Directors serve as resources for faculty regarding the use of the college's SLO data management system, eLumen. They are assigned a special role in eLumen which allows them to generate reports that provide useful information to ensure compliance with institutional requirements and accreditation standards related to SLO assessment. Faculty submit CSLO results in eLumen.

For example, eLumen's *SLO Presentation Report* identifies all of the course-, program-, and institution-level SLOs reflected in the system; Department Chairs and Program Directors can use this report to validate that the course-level SLO statements (CSLOs) that faculty include on their class syllabi each semester align with the statements identified in the official course outline of record (COR), in accordance with Standard II.A.3 of the Accrediting Commission for Community and Junior Colleges (ACCJC). The *SLO Participation Report* is another eLumen report which Department Chairs and Program Directors can generate each semester to provide information about the status of assessment reporting among all faculty within their department. The course-level report assists faculty leaders in following up with instructors who have not completed scheduled CSLO assessments or have not developed preliminary action plans to mitigate any identified performance gaps among student populations. The program-level report provides information about student performance related to program-level SLO statements (PSLOs); the data in this report is based on CSLO data from courses that have been mapped to the PSLOs by program faculty. Assessment activities at each of these levels are essential for the college to remain in compliance with accreditation standards related to SLO assessment and the analysis of disaggregated data (e.g., ACCJC Standards I.B.5 and I.B.6)

Department/Program Faculty

As noted above, the SLO process at Cerritos College is faculty-driven, and faculty play an essential role in the SLO assessment process. They collaborate with various stakeholders across the college to participate at each step in the SLO assessment cycle. SLOs are regularly revised as part of the curriculum process.

Development of SLOs

In accordance with the 2021-2024 collective bargaining agreement between the Cerritos Community College District and the Cerritos College Faculty Federation (CCFF)[3], full-time and part-time faculty are expected to participate in the assessment of student learning outcomes (SLOs); moreover, full-time also participate in the development of SLOs:

Article 4.2.2.ix
Student Learning Outcomes-Fulltime faculty will participate in the development and assessment of student learning outcomes.

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[3] To access the collective bargaining agreement in effect July 1, 2018 through June 30, 2021, please visit:
https://www.cerritos.edu/hr/_includes/docs/CCFF_CBA_070118_063021_Final_ds.pdf

Article 4.2.4
Student Learning Outcomes-Part time faculty will participate in the assessment of student learning outcomes. Under special circumstances when there is no full time faculty within the department, part time faculty may develop student learning outcomes with prior approval of the appropriate dean/area manager. When part time faculty members develop student learning outcomes, they shall be compensated at the ancillary rate of two hours per teaching unit (TU).

The curriculum committee also contributes to the identification of CSLOs. Faculty identify SLO statements for all new curriculum proposals (e.g., course, program) which are submitted for approval to the college Curriculum Committee. Revising CSLOs is also part of the curriculum review. During tech review, the curriculum committee may offer suggestions and feedback related to CSLOs. Appendix B presents Bloom's Taxonomy of action verbs which are appropriate for constructing SLO statements. For existing curriculum, faculty may initiate revisions to SLO statements via a specified workflow in the college's SLO data management system, eLumen. Additional resources are available to provide ongoing support for faculty development and revisions of SLOs, including the guidance of Department Chairs/Program Faculty and the SLO Committee Chair.

If faculty modify or revise CSLOs, that workflow does not need to be initiated through curriculum and can be requested through the SLO specialist or coordinator.

Assessment of SLOs and eLumen data entry

The SLO assessment cycle at Cerritos College is such that all departments establish a three-year cycle in which all SLOs for all course sections are assessed every semester, assessment results are reviewed every three years, and action plans to address disproportionate impact gaps or revise curriculum are developed. One or more CSLO for every course section offered needs to be assessed every semester, and this three-year cycle ensures continuous assessment. .Faculty generally collect SLO assessment data from student work completed within the context of the class (e.g., class assignments and/or exams). In some cases, department faculty use a standardized tool/instrument to assess SLOs for all sections of a particular course.

Upon administration of SLO assessments and collection of SLO data, faculty enter into eLumen a variety of information related to the assessment process. Within eLumen, they complete an assessment report based on a template which includes fields for such information as:
- Scorecard performance based on the 3-point rubric configured in eLumen
- Reflection template that includes narratives of individual action plans based on assessment results, particularly any performance gaps among disproportionately impacted student populations.

A guide to eLumen is presented in Appendix C.

SLO Data Analysis and Action-Planning

Faculty engage in ongoing dialogue about SLO assessment at both the course- and program-levels during department and/or division meetings. Every three years, departments review disaggregated SLO data on the college data dashboards. Departments should review the data at department meetings, discuss any disproportionate impact gaps they are seeing in the data. Faculty discourse about SLO results includes the identification of any performance trends based on collective data. Based on the analysis of these collective data, faculty collaborate to develop SLO action plans that can be implemented broadly to mitigate any performance gaps observed program wide and to ensure that curriculum is updated and culturally responsive.

Faculty may also participate in ongoing discussions about student learning outcomes (SLOs) as a member of the SLO Committee. As a committee of the Faculty Senate, the SLO Committee provides guidance and direction for college-wide assessment of SLOs at the course-, program-, and institutional-levels (see Section 2). The SLO Committee explores any trends in assessment data across instructional programs, as well as facilitates discussions about assessment data related to institution-level learning outcomes (ISLOs).

Cerritos College Planning Process

Cerritos College makes decisions about planning and budgeting based on its guiding document, "Cerritos College's Decision-Making Process: A Guide to Planning and Budgeting"[4]. This document describes the planning structure, operational relationships, and other mechanisms involved in making inclusive and transparent decisions to achieve the college's mission most effectively. As a foundational component of program review, SLO data are essential to the institutional decision-making process. As outlined in the document, faculty and staff at the college engage in dialogue about various measures of institutional effectiveness, including formal program review and annual unit planning. Annual unit plans use information from program review to identify areas for improvement and to justify the allocation of financial resources.

The "Guide to Planning and Budgeting" document describes the role of student learning outcomes (SLO) assessment in the formal review of program quality and effectiveness, as well as in long-term institutional planning efforts. As departments are preparing annual unit plans and comprehensive program review reports, departments can reference past SLO and PLO action plans. Where resources were identified to make a critical change to improve student success, department chairs can link those SLO and PLO action plans to the resource requests.

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[4] To access the Guide to Planning and Budgeting, please visit: https://www.cerritos.edu/planning-and-budget/planning-and-allocation-resources-guide.htm

<center>**Appendices**</center>

Appendix A: Student Learning Outcomes (SLO) Committee Guide

SLO Committee Governance and Composition

As a committee of the Faculty Senate, the Student Learning Outcomes (SLO) Committee serves as the formal body which coordinates the assessment of student learning. SLO Committee membership includes the following:

- Committee Chair (Faculty)
- Representative from each academic division (Faculty)
- Representative from Counseling Department (Faculty)
- Representative from Library and Learning Resources Center (Faculty)
- Representative from Student Accessibility Services (Faculty)
- Faculty Senate representative (Faculty)
- Student Services representative (Faculty)
- Student Services representative (Administrator)
- Academic Affairs representative (Administrator)
- Institutional Effectiveness, Research, and Planning (IERP) representative
- Association of Cerritos College Management Employees (ACCME) representative
- Classified Staff representative
- Student representative
- SLO Program Assistant

Student Learning Outcomes (SLO) Committee Purpose

The Student Learning Outcomes (SLO) Committee is largely responsible for providing campus-wide guidance regarding the assessment of SLOs at the course, program, and institutional levels. The purpose of the SLO Committee is to operate within the context of its purview as a committee of the Faculty Senate to:
- Oversee the SLO strategy for Cerritos College
- Provide support to all individuals and programs on campus that need help with developing and assessing SLOs
- Suggest college-level resources to support SLOs
- Coordinate with other groups involved in SLO work, including the Instructional Program Review Committee, the Curriculum Committee, and the Office of Institutional Effectiveness, Research, Planning, and Grants (IERPG)
- Oversee SLO assessment process for degree and certificate programs, as well as for general education (i.e., institutional student learning outcomes)

- Communicate with campus constituents regarding the SLO assessment process, as well as any trends in the results of the assessment of student learning outcomes at the college

SLO Committee Member Roles and Responsibilities

Meetings of the Student Learning Outcomes (SLO) Committee are generally scheduled twice per month during the Fall and Spring terms of the academic year.

SLO Committee Chair. The Chair of the Student Learning Outcomes (SLO) Committee is an elected faculty member who leads the committee in overseeing and providing support for the assessment of course-, program-, and institution-level student learning outcomes at the college. The SLO Committee Chair is responsible for disseminating information about student learning at the college, as well as for facilitating training opportunities related to the development and assessment of SLOs. The SLO Committee Chair also serves as a member of the Curriculum Committee and the Instructional Program Review Committee, collaborating with other faculty leaders to influence campus-wide policy and planning. The SLO Committee Chair also functions as a data steward for the college's SLO data management system, eLumen.

General Committee Members. General committee members are expected to attend regularly scheduled meetings of the Student Learning Outcomes (SLO) Committee and to actively engage in the collective work of coordinating learning assessment campus wide. As representatives of their divisions, committee members are expected to actively engage in committee discussions, decisions and communication on behalf of the programs they represent. Furthermore, committee members share best practices from their divisions with the committee, support faculty throughout the SLO process and maintain currency on SLO practices. This includes reminding divisions to ensure that SLOs on syllabi are consistent with the official SLOs of record and supporting faculty to use disaggregated SLO data to achieve our college's mission.

Resources for SLO Committee Members

Numerous resources are available to orient members of the Student Learning Outcomes (SLO) Committee to the assessment process at Cerritos College. In addition to the information presented in the appendices of this handbook, the SLO Committee webpage provides information about the assessment process and links to various online resources.

Appendix B: Bloom's Taxonomy

Bloom's taxonomy refers to a classification of the different objectives that educators set for students (i.e., learning objectives). Specifically, Bloom's taxonomy divides educational objectives into three domains: cognitive, affective, and psychomotor, and assigns to each of these domains a hierarchy that corresponds to different levels of learning. Within the domains, learning at the higher levels is dependent on having attained prerequisite knowledge and skills at lower levels. A goal of Bloom's taxonomy is to motivate educators to focus on all three domains, creating a more holistic form of education.

Cognitive Domain (Knowledge)

The cognitive domain is focused on the development of intellectual skills, such as the recall of recognition of specific facts, procedural patterns, and concepts that serve in the development of intellectual abilities and skills.

Category	Example Learning Outcome(s)	Key Words
Remember: recall previously learned information	Remember the names and relationships of characters in a play. Recite a policy.	Defines, describes, identifies, knows, labels, lists, matches, names, outlines, recalls, recognizes, reproduces, selects, states
Understand: Comprehend the meaning, translation, interpolation, and interpretation of instructions and problems. State a problem in one's own words	Explain in one's own words the steps for performing a complex task. Translates an equation into a computer spreadsheet. Understand and explain the main ideas of the literature.	Comprehends converts, defends, distinguishes, estimates, explains, extends, generalizes, gives an example, infers, interprets, paraphrases, predicts, rewrites, summarizes, translates
Apply: Use a concept in a new situation or unprompted use of an abstraction	Apply the main themes in the play to another context. Apply laws of statistics to evaluate the reliability of a written test.	Applies changes, computes, constructs, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, shows, solves, uses
Analyze: Separates material or concepts into component parts so that its organizational structure may be understood. Distinguishes between facts and inferences	Ba able to analyze the relative roles of each character in the play and their relationships to each other. Troubleshoot a piece of equipment by using logical deduction.	Analyzes, breaks down, compares, contrasts, diagrams, deconstructs, differentiates, distinguishes, identifies, illustrates, infers, outlines, relates, selects, separates
Evaluate: Make judgements about the value or ideas or materials	Select the most effective solution. Explain and justify the new budget proposal.	Appraises, compares, concludes, contrasts, criticizes, critiques, defends, describes, evaluates, explains, interprets, justifies, relates, summarizes, supports
Create: Builds a structure or pattern from diverse elements. Put parts together to form a whole, with emphasis on creating new meaning or structure	Create a new and unique piece of writing. Write a process manual.	Categorizes, combines, compiles, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, summarizes, tells, writes

Affective Domain (Attitudes)

The affective domain is focused on the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasm, motivations, and attitudes.

Category	Example Learning Outcome(s)	Key Words
Receiving: awareness, willingness to hear, selected attention	Listen to other students with respect. Listen for and remember the name of newly introduced people.	Asks, chooses, describes, follows, gives, holds, identifies, locates, names, points to, selects, sits, erects, replies, uses
Responding: Active participation on the part of the learners. Learning outcomes may emphasize compliance in responding, willingness to respond, or satisfaction in responding	Speak effectively in front of an audience and actively respond to others. Participates in class discussion. Gives a presentation. Knows the safety rules and practices them.	Answers, assists, aids, complies, conforms, discusses, greets, helps, labels, performs, practices, presents, reads, recites, reports, selects, tells, writes
Valuing: The worth or value a person attaches to a particular object, phenomenon, or behavior.	Demonstrate and explain own values regarding various topics. Is sensitive towards individual and cultural differences (values diversity)	Completes, demonstrates, differentiates, explains, follows, forms, initiates, invites, joins, justifies, proposes, reads, reports, selects, shares, studies, works
Organization: Organizes values into priorities by contrasting different values, resolving conflicts between them, and creating a unique value system.	Compare value systems and understand evidence behind values. Accepts responsibility for one's behavior. Accepts professional ethical standards.	Adheres, alters, arranges, combines, compares, completes, explains, formulates, generalizes, identifies, integrates, modifies, orders, organizes, prepares, synthesizes
Characterization: Has a value system that controls their behavior. The behaviors are pervasive, consistent, predictable, and characteristic of the learner.	Works well in a team of peers (displays teamwork). Shows self-reliance when working independently. Values people for what they are, not how they look.	Acts, discriminates, displays, influences, listens, modifies, performs, practices, proposes, qualifies, questions, revises, serves, solves, verifies

Psychomotor Domain (Behavior and Skills)

The psychomotor domain is focused on physical movement, coordination, and use of the moto-skill areas. Development of these skills requires practice and is measured in terms of speed, precision, distance, procedures, or techniques in execution.

Category	Example Learning Outcome(s)	Key Words
Imitation: Observing and patterning behavior after someone	Performing a skill while observing a demonstrator.	Copy, follow, mimic, repeat, replicate, reproduce, trace
Manipulation: Being able to perform certain actions by memory or following instructions	Follows instructions to build a model. Being able to perform a skill on one's own after taking lessons or reading about it.	Act, execute, perform
Precision: Refining, becoming more exact, performing a skill within a high degree of precision	Performing a skill or task without assistance. Demonstrating a task to a beginner.	Calibrate, demonstrate, master, perfectionism
Articulation: Coordinating and adapting a series of actions to achieve harmony and internal consistency	Combining a series of skills or activities to meet a novel requirement.	Adapt, constructs, creates, modifies
Naturalization: Mastering a high-level performance until it becomes second-nature or natural, without needing to think much about it	Operates a computer quickly and accurately.	Design, development

Appendix C: [Getting Started with eLumen](#)

eLumen SLO Assessment Submission Guide
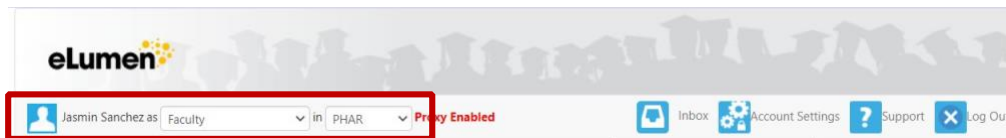
Revised: April 14, 2023

Step 1: Getting Started

Login to [eLumen](#) using your Cerritos College credentials (i.e., username – without @cerritos.edu and password).

Step 2: Navigating to your SLO Assessment in eLumen
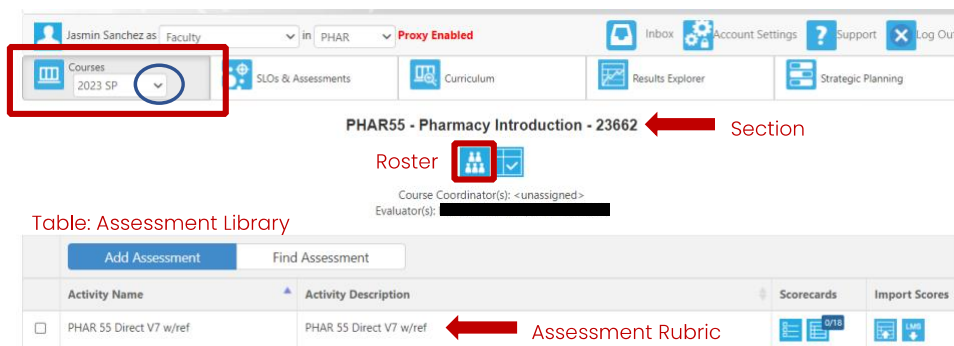
At the top of eLumen, verify the following:
- Your role is listed as Faculty
- Your program

In the Faculty role, the default landing page is the "Courses" tab which will allow you to view the course(s) and section(s) you are assigned to teach for the selected term. Faculty are able to view previous term information by using the drop-down menu on the courses tab.

For each section that you are assigned, you will see a course header, which includes a roster for the section and the assessment library table.

Step 3: Completing SLO Assessments in eLumen

There are three options available to submit SLO data in eLumen: manually through a score card or scoring rubric, uploading an XLS or CSV spreadsheet, or linking the assessment rubric to the learning management system (LMS: Canvas).

Appendix D: Faculty Senate Resolution
In March 2022, the Faculty Senate approved a **three-year SLO cycle** where every course SLO must be assessed and analyzed at least once within the 3 years.
How best to utilize the three years is left to the program/department*. Programs must develop and document their three-year plan in their strategic planning and program review reports.

All plans must:

1. *Develop, modify, or review course, certificate/degree, and program SLOs*

2. *Design and create an assessment plan for course SLOs*

3. *Conduct an assessment(s) of course SLOs*

4. *Input assessment results into eLumen*

5. *Discuss and analyze data from assessments*

6. *Determine and document any refinements (action plan) to the program based on SLO data into eLumen (e.g., changes to curriculum, pedagogy, assessment strategy, etc.).*

*The Senate SLO Committee highly recommends all programs work toward the goal of evaluating every course SLO for each course section offered and review their course SLO data annually as part of their unit/ strategic planning.

NB: For accreditation and IPR purposes, at least one CSLO for every course section needs to be assessed each semester.

Appendix E: Example of SLO Presentation Reports

eLumen SLO Presentation Reports identify the student learning outcomes statements that have been identified for any given course (CSLOs) or degree/certificate program (PSLOs).

CSLO Presentation Report Example

Business Education

ACCT

CSLO

ACCT51 - Volunteer Income Tax Accounting
- Students will pass the IRS VITA Standards of Conduct
- Students will pass the IRS VITA Intake Interview test
- Students will pass the IRS VITA Basic Exam for individual tax return preparation
- Students will participate in the annual VITA event at Cerritos College

ACCT60 - Quickbooks Accounting
- Students record cash and credit sales transactions and record customer payment transactions for both service and merchandising businesses.
- Students record vendor bills and generate payments via check for both service and merchandising businesses.
- Students generate reports and financial statements for both service and merchandising businesses.

ACCT61 - Turbo Tax Accounting
- Students will be able to prepare simple individual federal income tax return using Turbo Tax.
- Students identify what types of income are taxable and what deductions are approved for individual taxpayers for federal income taxes.
- Students identify the supporting schedules that accompany an individual income tax return and what information each schedule is reporting.

PSLO Presentation Report Example

Humanities and Social Sciences

AJ

Administration of Justice--Transfer
- Student employ the basic process of a preliminary investigation.
- Students distinguish between local, state, and federal jurisdictional authority.
- Students identify major case law decisions impacting law enforcement.
- Students identify the basic elements of the criminal trial process.
- Students recognize how cultural diversity impacts police-community relations.
- Students recognize the parameter regarding search and seizure and use of force.

ANTH

Anthropology--AAT
- Compare and contrast the four subdisciplines within Anthropology.
- Students describe the several steps regarding the Scientific Method.
- Students explain the several theories within Evolutionary Theory/Law.
- Students recognize the benefits and problems concerning Cultural Relativism.
- Students recognize the benefits and problems concerning Ethnocentrism.

ECON

Economics--AAT
- Students analyze the impact of fiscal and monetary policy on the economy.
- Students describe how households maximize utilities and firms maximize profits in different market structures
- Students evaluate the costs and benefits of government intervention in markets.
- Students locate and utilize data to critically interpret economic information using quantitative methods.
- Students understand the basic principles of a market economy and its principal economic institutions

EDEL

Elementary Teacher Education--ADT
- Students analyze and interpret various types of data.
- Students analyze the core of an educational problem, issue, or question by referencing educational philosophy.
- Students construct oral and written arguments and critique the reasoning of others.
- Students employ discipline-specific methodologies to address a variety of real-world problems.
- Students explain the American political institutions and their historical development.
- Students identify prominent aesthetic, symbolic, and functional features of visual and performing arts.
- Students recognize the historical development of the world's diverse cultures.

Faculty Participation Report Example

Cerritos College
Faculty Participation Report

Purpose of this report is to show the coordinator and evaluator completion of creating assessments for planned SLOs, assessment scoring, action plan responses, and RFIs by department, course and section.

ESL

Terms: ▆▆▆▆▆▆   Date: ▆▆▆▆▆

Showing: All

▆▆▆▆

Division and Department Participation

Organization	Coordinators	Enrolled Students
Liberal Arts	▆▆▆▆▆	7462
ESL	▆▆▆▆▆	217

Course and Section Participation

Course or Section	Course Coordinators or Evaluators	Enrolled Students	SLO Assessment				Completed Assessments
			CSLOs Assessed	Students Scored	Total Scores for All Assessments	N/A Scores for All Assessments	
ESL							
ESL10 - ESL Speaking and Listening 1	(None)	12	-	-	-	-	-
Section ▆▆	▆▆▆▆▆	3	11 of 11	0 of 3	0 of 33	0 of 33	0 of 1
Section ▆▆	▆▆▆▆▆	10	11 of 11	8 of 10	88 of 110	22 of 110	1 of 1
Section Totals for ESL10	2 Evaluators	12	11 of 11	8 of 12	88 of 143	22 of 143	1 of 2
ESL11 - ESL READING 1	(None)	8	-	-	-	-	-
Section ▆▆	▆▆▆▆▆	8	5 of 5	8 of 8	40 of 40	0 of 40	1 of 1
Section Totals for ESL11	1 Evaluator	8	5 of 5	8 of 8	40 of 40	0 of 40	1 of 1
ESL12 - ESL PRONUNCIATION	(None)	9	-	-	-	-	-
Section ▆▆	▆▆▆▆▆	9	8 of 8	9 of 9	72 of 72	0 of 72	1 of 1
Section Totals for ESL12	1 Evaluator	9	8 of 8	9 of 9	72 of 72	0 of 72	1 of 1

Appendix F: Example of SLO Participation Report

Faculty Participation Report
Semester: Fall 2020
Division: Summary

Division	Classes Held	Classes Assessed	Percentage Assessed
Business	231	118	51%
Fine Arts	226	53	23%
Health Occupations	183	50	27%
HPEDA	231	90	39%
Humanities and Social Sciences	325	147	45%
Liberal Arts	398	273	69%
Other Programs	103	58	56%
SEM	424	137	32%
Technology	113	70	62%
Totals	2234	996	45%

This report represents the total number of classes held and the number of classes where assessments were completed. Courses that include both a lab and lecture component were counted as one class. The source of the information is the "Faculty Participation" report in eLumen