

**Program:** Computer Studies (CIS, CNT, CS)

**Division:** STEM

**Date:** 11/06/2024

**Writer(s):** Carlos Moreno

**SLO/SAO Point-Person:** Carlos Moreno

---

**Audience:** Deans, Vice Presidents of Student Services and Academic Services, All Planning and Allocation Committees. This document will be available to the public.

**Uses:** This Program Review will inform the audience about your program. It is also used in creating division summaries, determining college planning priorities, and determining the allocation of resources. The final use is to document the fulfillment of accreditation requirements.

**Please note:** Program Review is NOT a vehicle for making requests. All requests should be made through appropriate processes (e.g., Instructional Equipment Request Process) or directed to your dean or supervisor.

**Time Frame:** This Program Review should reflect your program status during the 23-24 academic year. It should describe plans starting now and continuing through 2024-25.

#### Helpful Links:

- ★ [Tools for Writers](#) - with contacts for help with specific sections.
- ★ [Program Review Glossary](#) - defines key terms you can review when writing.
- ★ [Fall 2023 Program Reviews](#)
- ★ [Program Review FAQs](#)

For help with your program review, please contact Karin Spirn at [kspirn@laspositascollege.edu](mailto:kspirn@laspositascollege.edu)

---

## Sections

There are four sections to the document:

1. Review your program, including curriculum updates, accomplishments, challenges, and planning.
2. Data Analysis
3. SLO/SAO Review
4. Feedback on the PR template and process

#### Instructions

1. Please answer each question with enough detail to present your information, but it doesn't have to be long.
2. If the requested information does not apply to your program, write "Not Applicable."
3. Optional/suggested: Communicate with your dean while completing this document.
4. Send an electronic copy of this form to Program Review chair, Karin Spirn, and your Dean by Monday, Nov. 4, 2024

5. Even if you don't have much to report, we want to hear from you, so your voice is part of the college planning process.

***Equity is a guiding principle. Here is the LPC definition:***

Las Positas College will achieve equity by changing the impacts of structural racism, ableism, homophobia, and systematic poverty on student success and access to higher education, achieved through continuous evaluation and improvement of all services. We believe in a high-quality education focused on learning and an inclusive, culturally relevant environment that meets the diverse needs of all our students.

LPC Equity Definition: Equity is parity in student educational outcomes. It places student success and belonging for students of color and disproportionately impacted students at the center of focus.

## Section 1: Your Program In 2024-2025

Please place an X next to N/A where relevant

### A. Accomplishments: Identify your main accomplishments from the 23-24 academic year.

Some areas you **may** want to note in your explanation are:

- Did your accomplishments support your program's plans identified in recent PRs?
- Did they relate to guided pathways?
- Were they in support of the colleges [equity definition](#)?
- Did they connect to any of the college [planning priorities](#)?
- Did you receive any positive/negative feedback from students?
- Are there any innovations or new processes you'd like to integrate?
- Has your program changed in response to the SCFF model of college funding? (completions, increasing enrollment, offering certificates, degrees, etc.)?

N/A \_\_\_\_\_

- ✓ Partnered with Lawrence Livermore National Laboratory to hire 3 summer interns to their cybersecurity program (first time they have taken on CC students for this program)
- ✓ Held summer camps for cybersecurity
- ✓ Hosted a "capture the flag" event for our students in partnership with a local cybersecurity company
- ✓ Partnered with Pedrozzi Foundation and Quest Science Center to create a summer robotics camp aimed at underrepresented children that are middle school-aged (11-13)
- ✓ Outreach efforts, such as Open House, Preview Night, and local high school events
- ✓ Strong partnership with our MESA Scholars program
- ✓ With help from Bethany McCormick, was able to establish partnership with the ISC2 cybersecurity organization
  - Faculty were invited to be panelists at their Spring 24 conference to discuss opportunities for collaboration between LPC and cybersecurity companies
  - We will be hosting their Fall 24 conference at our campus
- ✓ Strong student life presence
  - Computer Science club
  - Girls Who Code
  - Robotics club
  - Cybersecurity club

### B. Challenges, Pain Points, and Needs

What significant or ongoing challenges or obstacles did your Program face during the 23-24 academic year, especially related to accomplishing program goals/plans? Consider funding, staffing, materials, facilities, outside requirements such as legislative mandates, working on equity gaps, etc. Highlight/identify any challenges mentioned in previous reviews.

N/A \_\_\_\_\_

- ✓ Having only 1 full-time faculty in CS
- ✓ Having FTEF from canceled courses taken away from the department
- ✓ Access to facilities for our part-time faculty, such as the computer labs and restrooms
- ✓ The need for additional FTEF as our enrollment continues to increase
- ✓ The increased demand of Honors projects from students causes a strain on faculty
- ✓ The need for shelving units in our CNT labs

**C. Planning: What are your program's most important plans, either new or continuing?**

N/A\_\_\_\_\_

- ✓ Designing a generative AI entrepreneur certificate for our CIS discipline
- ✓ General technology updates (software and hardware)
- ✓ Incorporation of AI into our disciplines
  - AI in the Workforce
  - AI and Cybersecurity
  - Digital media literacy
- ✓ Equitable grading strategies that align with our disciplines

**D. Identify any college, district, or legislative barriers to your program's equity work. What suggestions do you have for minimizing or eliminating these barriers?**

Barriers:

- ✓ Technology loaner program (inconsistent, first-come first-served, locked-down)
- ✓ NETLAB access and payment (experienced a hardware failure over the summer that reset the system)
- ✓ Remote desktop availability (e.g., students have MacBook but need Windows for software)

Suggestions:

- ✓ Consider a more equitable approach to the technology loaner program
- ✓ Allow faculty to create images for loaner laptops that have necessary software installed
- ✓ Technology department should consider allowing remote desktop logins for students

N/A\_\_\_\_\_

**E. Curriculum Updates**

Reasons for updating include that it is required every two (CTE) or five (non-CTE) years, there is a program or college need, starting a new program, or new legislation.

1. Are you planning to update any curriculum in 24-25?  
Yes  No
2. Comments (Optional):
3. Please review your program [maps](#). Do you need to make any modifications?  
Yes  No

4. If yes, compare each [Program Map](#) to your current course offerings and sequencing. Pay close attention to prerequisite information, and classes offered only during certain semesters.
    - a) If your map requires a **non-curricular change** (i.e., course sequencing), consult your [Pathway counseling faculty liaison](#) to initiate changes.
    - b) **If your map requires a curricular change** (Program modifications) - these are initiated through the Curriculum Committee.
- Any questions? Contact the [Curriculum Chair](#) or the [Curriculum and SLO Specialist](#).
- 

## Section 2: Data Analysis – Quantitative and Qualitative

**IR Data Review:** Discuss any significant trends in the data provided by the Office of Institutional Research and Planning (or any other data you use for decision-making and planning).

*(Note: Not all Programs have IR data available; if your program does not have a data packet or dashboard data, you may note that in the response box and reach out to [the IR team](#).)*

Here are a few samples of data to review and reference if that's helpful.

- IR Data packets [are available here](#) (Posted Fall 24)
  - Academic & Career [Pathway Specific data](#) (Posted Fall 24)
  - Your program's survey data
  - [Transfer data](#)
  - Course Set Standard Overview & Success Rates Dashboard are in the middle of [this page](#)
- 
- ✓ All 3 of our disciplines are meeting or exceeding the program-set standard
    - For CS, we have seen the largest success rate (75.7%) in 2023-24, relative to the past 6 years
  - ✓ In terms of enrollment, all our disciplines saw increases in 2023-24
    - CNT and CS, specifically, have begun to exceed pre-pandemic enrollment counts
  - ✓ Regarding gender data, CIS continues to see parity between male and female enrollment
    - CNT and CS, however, continue to be male-dominated
  - ✓ In terms of ethnicity, CNT and CS are experiencing a shift, with Latino and Asian becoming majorities
    - We see this to a lesser extent in CIS, but white continues to be the largest group
  - ✓ We have relatively few students completing our certificates (2+2+1+1+5+2+3+7+1=24)
    - This is similar for our degrees (3+19+3=25)

### **B. Program-Set Standard (Instructional Programs Only):**

The program-set standard is a baseline that alerts programs if their student success rates have dipped suddenly. 95% of the rolling 5-year average. There are valid reasons a program does not meet the Program Set Standard; when a program does not meet this standard, they are asked to examine possible reasons and note any actions that should be taken, if appropriate. | [Program-set standard data can be found on this page](#).

1. Did your program meet its program-set standard for successful course completion?

Yes  No

2. If your program did not meet your program-set standard, discuss possible reasons and how this may affect program planning or resource requests.

### Section 3: SLOs/SAOs: Assessment of Student Learning and Support

Program Review is the college's major data source on student learning and support and is, therefore, regularly reviewed. *Each year, programs must discuss their PSLOs, CSLOs, or Service Area Outcomes (SAOs.) This helps us to see how our students are progressing in their learning.* For assistance with these questions and instructions on running reports using eLumen, [click here](#).

Please complete at least one of the following three sections based on what is appropriate for your program.

Check at least one below:

- C1: Instructional Programs with PSLOs (disaggregated PSLOs)
- C2: Instructional Programs with CSLOs (*Departments without degrees, non-major courses, and/or other courses up for assessment*)
- C3: Non-Instructional Programs (SAOs)

#### **C1: Instructional Programs with PSLOs (disaggregated PSLOs)**

To assess PSLOs within eLumen, CSLOs must be correctly mapped to only one PSLO, and every mapped CSLO must have assessment data. Please review the items below and proceed accordingly.

- If the CSLOs are mapped correctly and there is data for each CSLO, then continue to question 2.
  - If the CSLOs have assessment data and the mapping needs to be completed, then complete the mapping within eLumen ([See SLO Handbook, p. 7](#)) and continue to question 2.
  - If not all mapped CSLOs have assessment data, then you cannot assess the PSLO. In this case, continue to section C2.
1. [Please review your 3-year plan](#) and verify that all courses will be assessed by June 2026. (between Fall 2023 – Spring 2026)

Will at least one SLO be assessed in each course by June 2026?

Yes  No

*If not, please update your 3-year plan to include any courses you missed. If you plan to revise your 3-year plan, then send your updated plan to the [Curriculum and SLO Specialist and the SLO Chair](#).*

2. Based on your [3-year plan](#), list the PSLO(s) for the academic year 2023-2024 that your program selected to review and explain why these were chosen.

**Administrative Assistant (CA):** Upon completion of the Certificate of Achievement in Administrative Assistant, students are able to demonstrate the ability to successfully use basic English language skills (grammar, punctuation, capitalization, etc.) in business documents.

**Administrative Medical Assistant (CA):** Upon completion of the Certificate of Achievement in Computer Applications Software, students are able to create appropriate business documents including reports, letters, emails, project plans, messages, and websites, and apply standard business English including grammar, punctuation, and mechanics.

**Computer Applications Software (CA):** Upon completion of the Certificate of Achievement in Computer Applications Software, students are able to create appropriate business documents including reports, letters, emails, project plans, messages, and websites, and apply standard business English including grammar, punctuation, and mechanics.

**Computer Information Systems (AA):** Upon completion of the AA in Computer Information Systems, students are able to analyze a business problem and develop a solution using appropriate applications software.

**Computer Information Technologist (AS):** Upon completion of the AS in Computer Information Technologist, students are able to demonstrate a strong foundation of knowledge in computer programming, database design and administration, and computer networking.

**Project Management (CA):** Upon completion of the Certificate of Accomplishment in Project Management, students are able to develop survey questions to determine client requirements, develop project plans that ensure client satisfaction, and demonstrate clear, concise, and analytical writing.

**Web Development (CA):** Upon completion of the Certificate of Accomplishment in Web Development, students are able to create basic web pages that contain text (utilizing different fonts and colors), hyperlinks to other web sites, graphic images and sound.

**Cybersecurity and Network Administration (AS):** Upon completion of the AS in Network Security and Administration, students are able to install, configure, and manage computer and network hardware.

**Cybersecurity Professional (CA):** Upon completion of the Certificate of Achievement in CyberSecurity, students are able to use analytical thinking and critical analysis skills necessary to analyze and solve computer network security issues to help protect computers and computer networks using multiple operating systems.

**IT Support Professional (CA):** Upon completion of the Certificate of Achievement in IT Support Professional, students are able to achieve the Google IT Support Professional certificate and will be prepared to take the CompTIA A+, Network+, and Security+ certification tests.

**Computer Programming (CA):** Upon completion of the Certificate of Achievement in Computer Programming, students are able to professionally demonstrate the application of their skills in the development and testing of their solution to solve a specific computing project.

**Computer Programming for the Web (CA):** Upon completion of the Certificate of Achievement in Computer Programming for the Web, students are able to implement interactive web pages using high level programming language instructions to implement specific information internet-based solutions.

**Computer Science (AS):** Upon completion of the AS in Computer Science, students are able to analyze, design, and solve complex computer-based problems using both logical and mathematical methods including the implementation of control and data structures.

3. What percentage of faculty completed the planned CSLO assessments? (In eLumen, [run a Faculty Participation report](#) for 23-24).

- 60 % (50% in CIS, 57% in CNT, 63% in CS)

4. Analysis of PSLO(s): What conclusions can be drawn about student learning and equity in your program based on eLumen and/or other data? You may want to consider disaggregated data. When using eLumen [See the Guide](#) for instructions on how to disaggregate PSLO data.

The majority of our PSLOs are looking good, with many students falling in the “mastery,” “above average,” and “average” categories. However, there are a few programs with challenges comparing their PSLO data (students falling in either “below average” or “no demonstrated achievement”):

Web Development (CA)	21.7% in FA23	17.9% in SP24
Computer Information Technologist (AS)		12.3% in SP24
Computer Science (AS)		13.3% in SP24
Computer Programming (CA)		13.3% in SP24

Exploring our aggregated data, they seem to suggest that there are some demographic populations that are performing relatively worse: male, young ( $\leq 21$ ), first-generation.

5. Based on discussions with others in your program, explain potential changes designed to improve student learning and close any equity gaps identified through the analysis of PSLO data. Please also note if you decide to update any CSLOs or PSLOs based on this analysis (If updating, then you may do this through eLumen, see the [SLO Handbook](#) if you need instructions on how to do this).

For the programs with relatively high rates of non-success (see above), we aim to take a closer look at these programs and determine strategies to increase student performance. For example, we may consider professional development opportunities for our faculty to learn strategies to intervene early with possible cases of low-performance.

Regarding equity data, we believe there are opportunities for us to better connect with the students in our classroom. By reaching out and getting to understand the context surrounding the students, we can build rapport and trust that can hopefully translate to better performance as students feel more comfortable sharing their academic struggles. We may also consider adopting more equitable grading practices in our classes, which will require professional development.

6. If you experienced any challenges in completing your PSLO assessment process, please list those below along with any items that would help you improve this process in the future.

***C2: Instructional Programs with only CSLOs - Departments without degrees, non-major courses, and/or other courses up for assessment***



1. [Please review your 3-year plan](#) and verify that all courses will be assessed by June 2026. (between Fall 2023 – Spring 2026)

Will all courses be assessed by June 2026?

Yes\_\_\_\_ No\_\_\_\_

*If not, please update your 3-year plan to include any courses you missed or if you plan to revise your 3-year plan, then send your updated plan to the [Curriculum and SLO Specialist, and the SLO Chair](#).*

2. Based on your [3-year plan](#), list the CSLO(s) for the academic year 2023-2024 that your program selected to review.
3. What percentage of faculty completed the planned assessments for the selected CSLO? (In eLumen, [run a Faculty Participation report](#) for 23-24).
4. What conclusions can you draw from the CSLO data and reflections in eLumen. If you used any additional evidence or methods to answer this question, please explain.
5. Explain potential program changes designed to improve student learning. Please also note if you have decided to update any CSLOs or PSLOs based on analysis (If updating, then you may do this through eLumen, see the [SLO Handbook](#) if you need instructions on how to do this).
6. If you experienced any challenges in completing your CSLO assessment process, please list those in the box below, along with any items that would help you improve this process in the future.

### **C3: Non-Instructional Programs (SAOs)**

1. [Please review your 3-year plan](#) and verify that all courses will be assessed by June 2026. (between Fall 2023 – Spring 2026)

Will all courses be assessed by June 2026?

Yes\_\_\_\_ No\_\_\_\_

*If not, please update your 3-year plan to include any courses you missed or if you plan to revise your 3-year plan, then send your updated plan to the [Curriculum and SLO Specialist, and the SLO Chair](#).*

2. Based on your [3-year plan](#), list the SAO(s) for the academic year 2023-2024 that your program selected to review.
3. [Based on discussion with others in your area](#), what conclusions can be drawn from the SAO data and reflection questions from eLumen or other sources of data?

4. Explain any planned changes to improve outcomes in your service area. Please note if you have decided to update any SAOs based on this analysis.
5. If you experienced any challenges in completing your SAO assessment process, please list those below, along with any items that would help you improve this process in the future.

#### **Section 4: Suggestions for the Program Review Committee (optional)**

What questions or suggestions about this year's Program Review forms or process do you have?