2026-27 Comprehensive Program Review

Program: Physics and Astronomy

Division: STEM

Writers: Robin Rehagen

SLO/SAO Point-Person: Robin Rehagen

Email your completed form to Karin Spirn and your dean by November 2, 2026.

Helpful Links:

- ★ Tools for Writers - with contacts and info for help with specific sections.
- ★ Program Review Glossary - defines key terms you can review when writing.
- ★ Discipline Data Packets – institutional research about disciplines and student services
- ★ Course Success Rates Dashboard – allows you to research your program's success rates

Detailed information and instructions appear at the end of this form. For help, please contact Karin Spirn at kspirn@laspositascollege.edu.

Section 1: Program Reflection and Planning

These questions appear on all Program Reviews including comprehensive and updates.

1. Please describe your program's most important **achievements** in year 25-26.

- Our enrollment in physics continues to rise. We have filled (and waitlisted) all our physics and astronomy courses. To support increased student need, we have increased the number of lab sections offered for all courses in the calculus-based physics series.
- Our Physics Club continues to support students through community- and career-building activities like field trips to research facilities and universities, scientific talks, and career mentoring. Two students this past year obtained all-expenses-paid trips to present their work at conferences.
- The ASTRAL consortium (a collaboration with Lick Observatory) has grown into a research group with bi-weekly meetings led by two of our part-time faculty. This collaboration allows students throughout all LPC's physics and astronomy classes to complete honors projects and independent-study projects using data from research grade telescopes. Students engaging with this collaboration learn many research skills, including imagine reduction, data analysis techniques, programming, and scientific writing.

2. Please describe your most important **challenges** in year 25-26

- We constantly face a deficit of qualified instructors to teach our courses. This has been exacerbated by the huge increase in student demand for physics courses. Physics's FTEF allocation has gone up 60% in the last 10 years, but there are no additional full-time faculty to staff the new courses we are offering.

We applied for **two** new full-time faculty positions this fall, but have not yet heard back any results. A third full-time faculty member is desperately needed to meet current student demand, and a fourth full-time faculty member is needed to grow the department's offerings so we can meet the needs of the 150+ waitlisted students we've had to turn away.

- The compressed calendar has been extremely difficult for both students and faculty in physics. Classes are very long (block lecture-labs last nearly 6 hours in a row) and both students and faculty are feeling the time crunch that comes with losing 3 weeks per semester. There is less time for students to study, and less time for faculty to grade and fulfill their other commitments. Students have less time to attend office hours and get help because they spend more hours per week in class. Every single physics student who has talked to me this semester is unhappy with the compressed calendar, and student performance on exams has suffered.
- Our department faces continual issues with the cleanliness and disorganization in our lab rooms, demo rooms, and surrounding area, which are under the purview of the laboratory technician.

3. What are your upcoming **plans**? Please note any ways that these support student achievement and equity.

- Every year we will continue to request additional new full-time faculty hires. When we finally get one, it will help improve course access to students and help their progress towards graduation.

Section 2: SLOs/SAOs

This section is completed every three years as part of the Comprehensive Program Review, with brief annual check-ins on the Program Review Updates. The following resources will be useful when completing this section:

- Three-Year Assessment Template
- Aggregated and Disaggregated Data from the following sources:
  - ELumen (if saved--no longer available online)
  - CurrIQunet
  - Student Success Dashboard

1. During the 2023-2026 three-year assessment cycle that just concluded, what did your program set out to learn through your PSLO/CSLO/SAO assessments?

- We collected data regarding the scientific method experimentation SLO, but because of issues inputting and analyzing data with the new CurrIQnet, we were not able to obtain disaggregated data.

2. Based on your analysis of your PSLO/CSLO/SAO assessment data, what conclusions did you draw about student outcomes and equity in your program?

- Unfortunately, we were not able to use last year's data to analyze student outcomes and equity.

3. Explain potential plans to improve student outcomes and close equity gaps.

- N/A for analyzing last year's data, but…
- This upcoming year we plan to look at disaggregated content SLO (i.e., exam scores) and compare them pre- and post- compressed calendar.

4. Describe any obstacles that you encountered in your assessment process and any supports that would be helpful.

- CurrIQnet is very annoying and difficult to use. I liked eLumen better. The process of clicking students names to input SLOs was much easier and faster in eLumen.
- Also, eLumen provided a more flexible ranking system for SLOs. With only 3 categories (instead of 4) for student SLO performance in CurrIQnet, we will lose a lot of the important information about how students are performing in classes. There is a huge difference between A work, B work, C work, and work that isn't passing. Therefore, we need 4 categories with which to rank students, and CurrIQnet only provides three. Given this loss of information, we will not be able to make useful conclusions from SLO data. I was a member of the SLO committee for many years. I learned a lot from SLO data analysis and firmly believe it can be useful. But I think that this usefulness is severely undermined by the way CurrIQnet is set up! If there were a way to reinstate that 4th category of assessment, that would make the SLO process feel much more meaningful. Right now It feels like busy work because I can't actually get the information I want out of it.

Section 3: Data Discussion

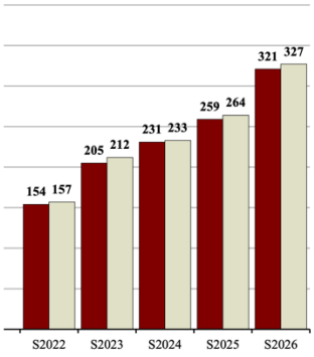
This section is completed every three years as part of the Comprehensive Program Review. Workshops and office hours will be offered in Fall 2026 to support Program Review writers.

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

*(**Note**: Not all Programs have RPIE 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 RPIE team.)*

Data may come from:

- RPIE Data Packets
- Transfer data
- Succes Rates Dashboard (scroll down on page)
- Requested data from the Office of Research, Planning, and Institutional Effectiveness (RPIE)
- SLO/SAO data
- Data from program-created surveys or investigations
- Any other relevant source of quantitative or qualitative data



- As we documented earlier in this Program Review, the number of students in physics has skyrocketed, doubling over the past 5 years. The plot to the right shows course enrollments increasing from ~150 students per semester to over 300 students per semester from 2022-2026
- As discussed earlier in this program review, fill rates across physics for the past 3 years have been nearly 100%.
- The age demographic for physics students is 20s and younger. <10% students are over 30. This demographic has not changed in the last 5 years.
- The ratio of men to women in physics classes is 2:1 in the fall and 3:1 in the spring. These ratios are fairly consistent across the last 5 years. We are unsure if the lower number of women in spring classes is due to attrition among female students, a difference in degree requirements (a higher portion of female students are in the biological sciences and often need fewer physics courses), or some other factor.
- In terms of racial demographic trends over the last 5 years, while the number of students among all race demographics has increased, the percent of Asian students has nearly doubled, while the percent of Latine and White students has decreased. No other racial demographics have experienced significant changes.
- 5-10% of our students in the fall are first-time college students in the fall semester. In the spring, the number drops to nearly zero.
- 70% of our students are full-time students.
- No Physics courses are currently offered DE. The IR data show that half of our students currently take no DE classes whatsoever. Of the 50% who do take online courses in addition to their physics courses, this percent has decreased consistently since the college reopened after COVID.
- 90% of our students have the goal to transfer.
- 2/3 of students are in their first or second year of college. 1/3 of our students have already completed 60 units or more.
- Course success (pass) rates typically increase in the spring semester: 75% in fall, 85% in spring. These have been consistent across the past 5 years.
- 80-90% of our students have completed transfer-level English and Math.

2. Equity: Did your data reveal any patterns of inequity? If so, please explain those patterns and any actions that should be taken at the program or college level.

- No, the data did not reveal any obvious patterns on inequity.

3. Course Modality (Instructional Programs Only): In reviewing your program's data packet and Succes Rates Dashboard, are there differences in success rates by modality (i.e. face-to-face, asynchronous, synchronous, hybrid, or hyflex)? If so, reflect on what might account for differences and any actions that should be taken. (Non-instructional programs may also choose to reflect on online vs. in-person services if applicable).

- We do not offer DE or hybrid courses.

4. Program-Set Standard (Instructional Programs Only): The program-set standard is a baseline that alerts programs if their student success rates have dipped suddenly below 95% of the rolling 5-year average. There is no punishment for not meeting the standard, and many valid reasons this may occur. 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

5a. Did your program meet its program-set standard for successful course completion in AY25-26?

Yes__X__ No____

5b. If your program did not meet your program-set standard, discuss possible reasons and how this may affect program planning or resource requests. Success rates for individual courses can be found on the Success Rates Dashboard.

- *Write responses here*
- *Add or remove bullets as needed*

Section 4: Special Topics

These questions have been chosen for this year's Comprehensive Program Review to meet reporting mandates (for accreditation, Ed. Code, or other sources).

1. Mission: Describe 1-3 examples of how your program's work has aligned with the college's mission, vision, values, and/or educational master plan over the past three years. (Possibilities might include new initiatives, resource allocation/use, program improvements, or other activities).

- Mission, Vision, and Values
- Educational Master Plan

- The physics department strongly supports the college's mission to prepare students for transfer. Physics is a required component of over 22 different STEM degrees (the largest and fastest growing division on campus).

2. Regular Substantive Interaction (Instructional Programs Only)

To meet our college, ACCJC, state, and federal standards, **all online instructors** must demonstrate "**regular and substantive interaction**" (RSI) with students. That is, we must be clearly providing instruction and interacting with our online students, just like we would in an on-campus class. The following reflection questions allow us to capture how RSI is occurring in our classes.

The following documents explain requirements and best practices for RSI:

- ACCJC Quality Continuum Rubric for Distance Education
- Regular and Substantive Interaction (RSI) requirements

2a. If your program offers DE courses, how are Regular and Substantive Interaction (RSI) requirements met in your area? Examples appear on the DE addendums of your Course Outlines of Record. Place an X next to each method used in your courses.	
	Course materials make clear to students how often and when the instructor will interact with students (e.g. syllabus/home page lists email/office hours/other ways to communicate and typical response times)
	Provides direct instruction over Zoom (e.g. regularly scheduled live online class sessions in synchronous/hybrid/hyflex courses)
	Provides direct instruction through instructor-created videos (e.g. lecture videos created using Studio in asynchronous courses)
	Provides additional information from various sources/mediums to engage students with course content (e.g. instructor-curated content in Canvas pages that help deepen students understanding of course content)
	Facilitates discussions (e.g. through Canvas discussion boards, Pronto, Studio, or Hypothesis)
	Provides feedback on students' coursework (e.g. through detailed rubrics and/or assignment comments in Speedgrader; note: a grade alone does not quality as RSI, nor does auto-graded feedback students may get through completing publisher content)
	Responds to students' questions (e.g. through timely responses to student messages in Canvas Inbox, discussion boards, social annotation assignments)
	Facilitates student success through ongoing outreach (e.g. posts announcements; uses "Message Students Who" to encourage struggling students to attend office hours or access free tutoring)
	Other [explain]:

2b. What challenges if any have you faced in implementing RSI? What additional training or resources might instructors in your program need to increase the quality of RSI in online courses?

- *Write responses here*
- *Add or remove bullets as needed*

Section 5: Program Review Feedback

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

- It was straightforward! Thanks ☺

Detailed Instructions

Instructions

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

Sections: There are five sections to the document:

1. Program Reflection and Planning
2. SLO/SAO Review
3. Data analysis
4. Special topics
5. Feedback on the PR template and process

Time Frame: This Program Review should reflect your program status during the 25-26 academic year. It should describe plans starting now and continuing through 2026-27. It is fine to discuss topics beyond these time frames, but please specify the time frame in your responses.

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.

Equity: Here is the LPC definition of equity, which is a guiding principle in reviewing programs: "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."

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.

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