A2026-27 Comprehensive Program Review

Program: Biology

Division: STEM

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SLO/SAO Point-Person: Fede Lopez Borghesi

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.

- ZTBC achievements including Allied Health pathway.
- Expanded Zero Textbook Cost (ZTC) Anatomy sections from 2 to 6, significantly reducing student costs and increasing access to course materials. Introduced ZTC in Bio 30 Introduction to College Biology Online Section.
- Secured ZTC funding to support the transition of Allied Health pathway and degree programs toward a Zero Textbook Cost model.
- NBIO 201 and NBIO 202 Noncredit Biotech Courses taught for the first time Summer 2026, adding FTEF. This was previously taught as a summer camp. The classes as a program offer students the opportunity to obtain a Certificate of Completion in Biotechnology from LPC, reduces the class cost for students, and increases the stability of funding for the classes.
- Recruited and hired part-time faculty to maintain and expand course offerings, preventing cancellations and ensuring student progression toward educational goals. This required conducting numerous interviews during the final weeks of the Spring semester and throughout the summer to fill last-minute staffing needs.
- Successfully onboarded new part-time faculty in Biology, Anatomy, Physiology, and Microbiology, increasing instructional capacity in high-demand disciplines.

- We were granted a $2,213 Foundation Grant. Paula said it may be used to support SmartShops
- Secured over $20,000 in grant funding for new Anatomy laboratory equipment, enhancing hands-on learning opportunities.
- Transitioned from 3 semester series to 2 semester series for Biology majors.
- Successfully launched BIO 1R, with strong enrollment demand and substantial waitlists.
- Developed shared instructional resources for BIO 1R, improving consistency across sections and supporting faculty success.
- Continued growth of BIO 1C (Cell and Molecular Biology), reflecting increasing student interest in biotechnology, health sciences, and transfer pathways.
- Collaborated during Flex Day activities to develop strategies for implementing the compressed academic calendar within Allied Health and Biology majors programs.
- Acquired a new cadaver through the UCSF Willed Body Program, strengthening the Anatomy dissection program and student learning experiences.
- Continued growth of Society of Aspiring Medical Professionals (SAMP), Biology Club and BIONIC Allied Health/Nursing pathway. These clubs offered successful campus and community events, including a vaccine hesitancy workshop attended by more than 100 participants.

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

- Continued growth across Biology, Allied Health, Nursing, and transfer preparation programs has created increasing pressure on facilities, instructional resources, and faculty staffing, highlighting the need for strategic expansion planning. Average course enrollment was 104% in Fall 2025 and 107% in Spring 2026. Several courses are difficult to staff with instructors who are qualified to teach in each specialty, and lab space is not sufficient to expand to offer additional course sections.
- The new BIO 1R experienced extremely high demand, with all sections reaching capacity and maintaining extensive waitlists. Although resources have been developed to support current instructors, the specialized nature of the course makes it difficult to identify and train additional qualified faculty.
- BIO 1C continues to grow rapidly, creating an urgent need for additional instructional support and lab classroom space.
- Microbiology consistently has long waitlists for all sections, but additional sections cannot be offered due to limitations in laboratory space and staffing.
- We have no full-time Microbiology Instructor following the retirement of Barbara Zingg, and we are in our second cycle of requesting a replacement for this key position. Microbiology is a highly specialized field, requiring the acquisition, storing, culturing, and handling of pathogens that

require consistent oversight by a full-time instructor. A full-time instructor is also needed to create the specific FF&E items for microbiology as we transition to the new STEAM building, and oversee curriculum development, program planning, and long-term initiatives

- We have only one full-time instructor who teaches Cellular and Molecular Biology, Bioinformatics, Biotechnology 1, and Biotechnology 2. We anticipate that Cellular and Molecular Biology will grow in enrollment and number of sections offered as demand increases and lab classroom availability increases after Microbiology relocates to the STEAM building.
- An ongoing challenge for the department is maintaining a strong pool of adjunct faculty; we compete with other community colleges for highly skilled instructors, and veteran part-time faculty leave for full-time positions elsewhere. Although intensive recruitment efforts have allowed us to maintain course offerings, the recurring need for last-minute hiring highlights an ongoing staffing shortage, particularly for specialized disciplines such as physiology, cell and molecular biology, and organismal biology.
- Onboarding new part-time faculty is a challenge, particularly when the HR processing time of new hire paperwork results in instructors who have no access to rosters or Canvas before the start of the semester. It also requires a full-time instructor to sit in on the new faculty class until HR processing is complete.
- The inability to hire paid substitutes for teaching causes challenges when faculty are absent due to illness, hiring committees, participation in seminars, and other professional development.
- An unexpected consequence of block scheduling for our lab technicians is the difficulty of turning over labs between sections. Under the block schedule, Biology and Chemistry transition at the same time, with only a 15-minute transition period between labs. Because our lab technicians support multiple labs across both disciplines, a single technician may be responsible for breaking down and setting up more than one lab during the same 15-minute window. This creates significant and unexpected workload challenges. We are understaffed by one technician, which has led to noticeably reduced support for our lab class activities.
- On Wednesday before Thanksgiving, we will need to hold our regular classes with the support of one of five laboratory technicians.
- Planning for the new STEAM building has experienced a substantial budget cut. The number of lab classrooms and the build-out for several of the currently planned labs has been reduced from the original plans, limiting the capacity of this building to accommodate long-term growth or support increased course offerings. For example, we will have infrastructure for four cadaver stations, but only two stations will be fully built and functional. The final build-out and associated costs

remain unclear, but additional investments will be required, and resource requests will likely be necessary through the Resource Allocation process.

- A new Microbiology lab classroom is planned. Currently Microbiology and Cellular and Molecular Biology share a lab classroom space and several pieces of equipment. We will need to ensure that new equipment and supplies for Microbiology are purchased.

- We have just two class-sets of laptops for Biology labs, and we often have conflicts with lab schedules so that we don't have enough laptops for all students or all classes. This will be exacerbated by the shorter semesters. We were promised another set of laptops as of July 1, 2026; and we have not received the computers or a timeline of when to expect them.

- Despite receiving new grant-funded equipment, the Anatomy program continues to face shortages in laboratory equipment. Additional resources will be necessary to adequately support current enrollment levels and future growth.

- We lost a sustainable source of funding for Biology SmartShops, after successfully offering an average of 9 Smart Shops per semester. Identifying a sustainable source of funding is essential to continue providing this support to students.

- We need sustainable funding for new cadavers, which are essential to Anatomy curriculum and the success of Allied health students. Cadavers currently last only 3 years and, but with the move to the new STEAM building with twice as many anatomy labs, will probably only last 1-2 years. We currently have no renewable funding source to purchase these materials, which are vital to the success of our Allied Health students and are a required part of the curriculum.

- Many Biotechnology-related activities require reagents that expire annually and are not included in the current supply budget. Many of our course-level and program-level SLOs reflect student competency in lab skills using industry-level equipment. There is currently no budget for equipment repair.

- Administration of grant funds at LPC has been slow and confusing, discouraging us from pursuing funding for new innovative projects that would serve our students and help LPC keep its competitive edge. When faculty have been awarded external grant funds, grant administration has provided unclear parameters and required multiple follow-ups which has slowed our ability, sometimes by many months, to:
    - Spend funds, for example, on a contract to pay an external evaluator in a timely manner
    - Establish and receive compensation, either as hourly pay or reassigned time, and receive accurate up-to-date load sheets for each semester

- Accurately anticipate costs such as our salary and benefits to effectively manage the grant budget
- Order supplies and equipment
- Submit reports to the funding agency in a timely manner

- We need time and support to update and improve our in-house lab manuals. To keep student costs down or zero cost, we have provided many of our own lab manuals for several years. Some of the manuals need reviewing and reevaluation to improve student learning, ideally with more inquiry-based instruction. Biology is a changing field, and lab manual content needs to be changed periodically to be current with new techniques. This requires full-time and part-time faculty to coordinate with lab technicians for curriculum design and implementation, all of which takes a significant amount of time.
- While substantial progress has been made toward ZTC implementation, some disciplines, particularly Physiology and the Biology Majors' 1R-1C sequence, continue to face challenges identifying and developing high-quality instructional resources that fully replace traditional textbooks.
- Student enrollment in NBIO201 and NBIO202 has been a major challenge, reducing FTEF in 2024 and 2025. Despite extensive advertisement and very high demand, the enrollment process is a real barrier to entry. Because of this, both classes were canceled in 2024, not offered in 2025, and almost canceled again in 2026 for low enrollment while applications waited to be processed. Most students are high school students who are required to go through LPC's Concurrent Enrollment Process. This process is confusing, with delays at each of several steps: enroll in LPC, obtain forms from LPC, create a discipline plan, request signature from high school officials, wait for LPC to process the application. This broken process needs to be fixed so that students can enroll without having to wait several weeks to find out if they in fact can enroll well in advance of when the classes occur.

  For example, in 2026, LPC Enrollment communicated that there were 200 pending concurrent enrollment applications as of April 28, 285 pending applications as of May 8, and 117 pending applications awaiting processing by LPC as of May 27. This delay in processing (1) made it impossible for us to predict in advance if the classes would fill, and (2) made it impossible for students to know in advance if they would be admitted to the class. In 2026, these classes ran June 8-11 and June 15-18. These specific dates were needed because the lab classroom with needed equipment is not available during the standard summer sessions.

- While SAMP has become a highly successful student organization, there remains a need for expanded advising, career guidance, and support resources for students pursuing pre-medical pathways, as these pathways are often not clearly structured at the community college level.
- Many of our students observe Eid al-Fitr during each spring semester. We have to balance the conflicting interests of accommodating a fairly large proportion of our students with the need to hold regular class on this important holiday.

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

- Hire full-time Microbiologist (primary position) and full-time Bio majors faculty (secondary position)
- We were granted a $2,213 Foundation Grant. Paula said it may be used to support Biology SmartShops
- The new STEAM building will have infrastructure for four cadavers; however, funding from this project will only cover three cadavers and their corresponding equipment. We need to secure additional funding for the fourth cadaver and its equipment. We also need to ensure funding for equipment for the new Microbiology lab classroom and new Biology Learning Center.

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:

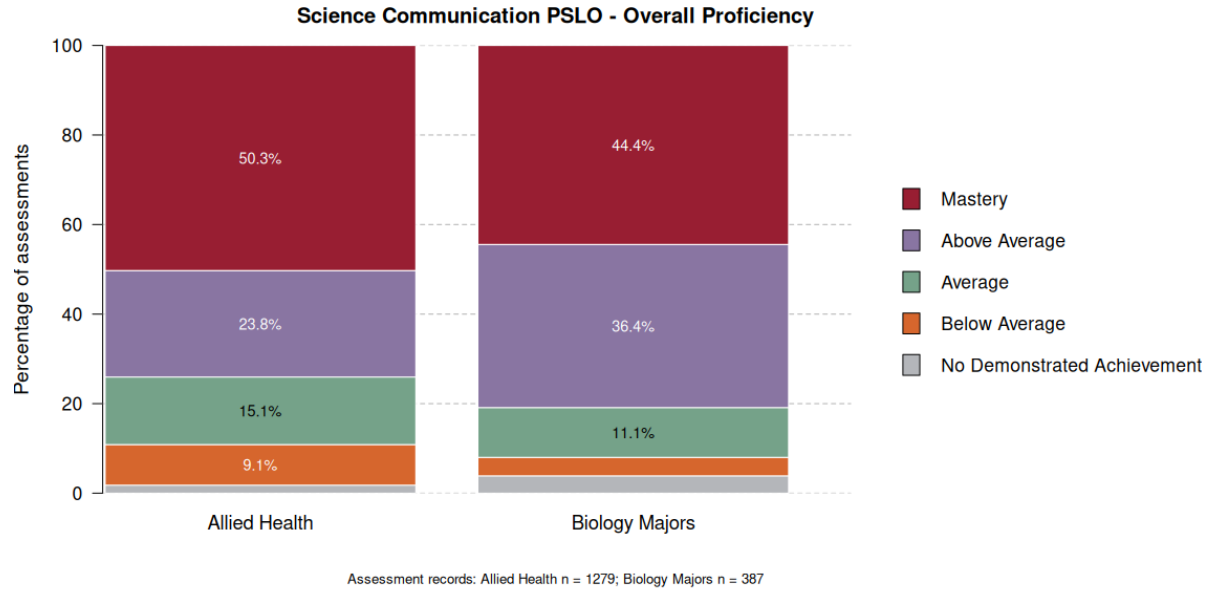
- Three-Year Assessment Template
- Aggregated and Disaggregated Data from the following sources:
  - ELumen (if saved--no longer available online)
  - CurrIQunet
  - Student Success Dashboard

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?

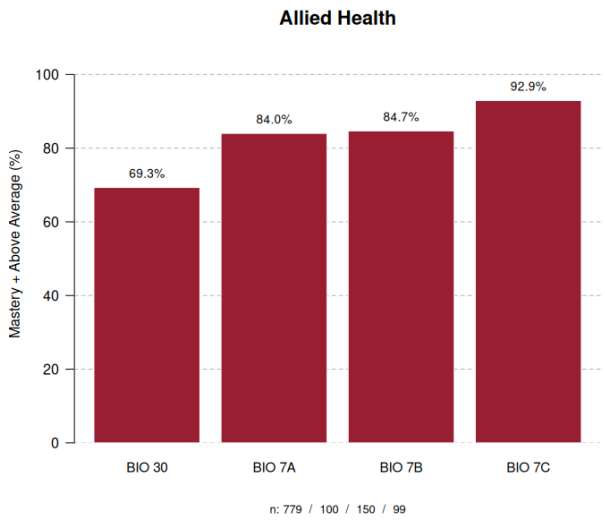
- Develop a Science Communication PSLO for Biology and Allied Health programs.
- Scaffold relevant scientific research and communication skills through course sequences.
- Map appropriate CSLOs to the PSLO.
- Collect and analyze assessment data to evaluate student proficiency.

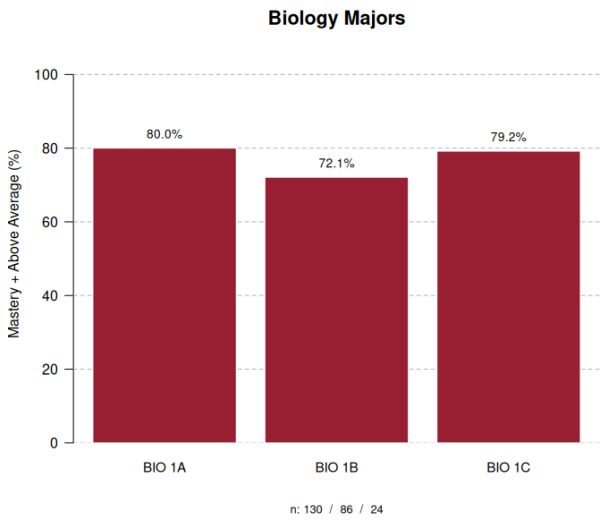
2. Based on your analysis of your PSLO/CSLO/SAO assessment data, what conclusions did you draw about student outcomes and equity in your program?

- Overall proficiency was high in both our programs. Approximately 74% of Allied Health and 81% of Biology Majors assessments achieved Mastery or Above Average in scientific research and communication skills

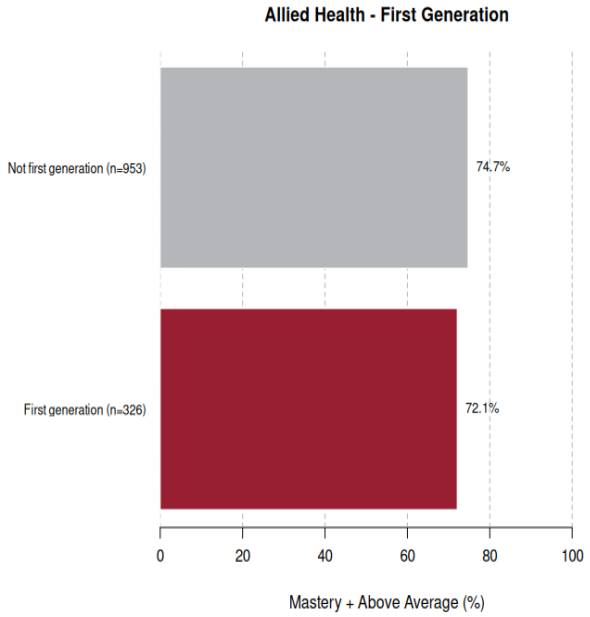


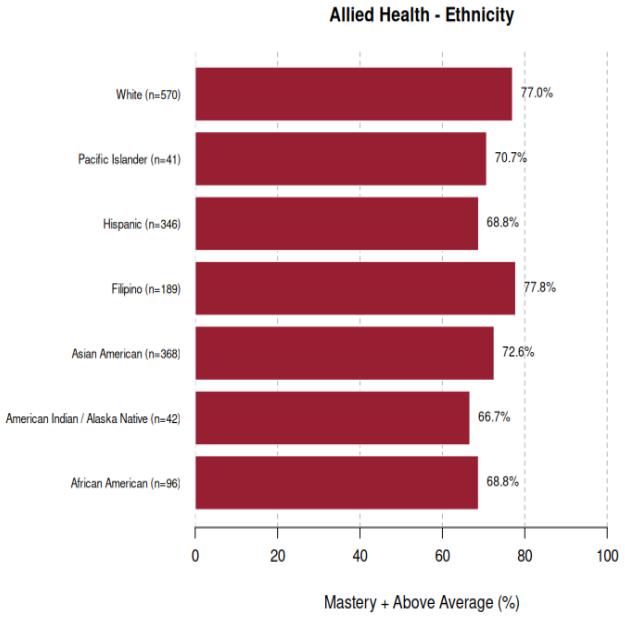
- Course-sequence results suggest effectives scaffolding in Allied Health, with high proficiency steadily increasing from 69% in BIO 30 to 93% in BIO 1C. The scaffolding was not evident in the Biology Majors sequence. It is important to note that these comparisons involve different groups of students, not longitudinal tracking of individual improvement.

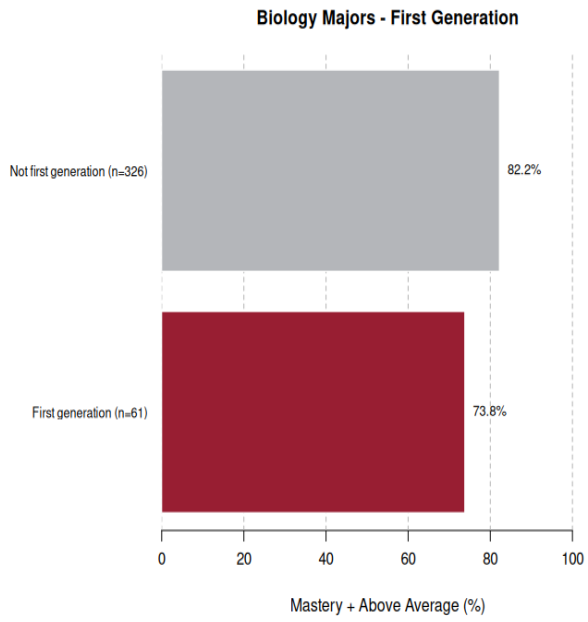


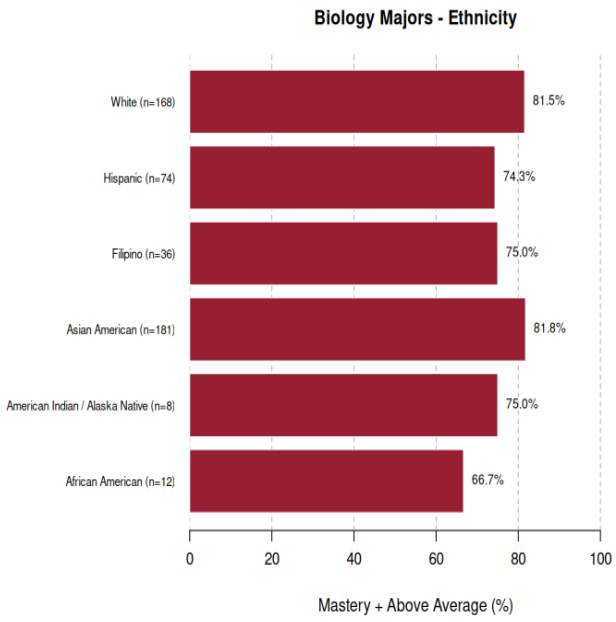


- Potential gaps in equity. First-generation students demonstrated lower proficiency, particularly in Biology Majors courses (74% versus 82%). Hispanic and African American students also generally showed lower proficiency in both programs. Gender-related differences were comparatively small.









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

- Empower faculty to use disaggregated assessment data. The transition to CurrIQunet META will allow faculty to examine their own SLO results by student demographic groups. The department plans to provide guidance and resources to help faculty interpret these data.
- Establish a new assessment focus for the upcoming cycle. Both Biology Majors and Allied Health programs will evaluate students' understanding and application of biological concepts. This responds to concerns about changing study habits, including increased reliance on AI tools and reduced engagement with assigned readings.

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

- Faculty participation has been reasonably strong. Approximately 75% of planned assessments have been completed. However, increasing participation and ensuring consistency across instructors remain important goals.
- Consistency of assessment remains a challenge, with instructors using different assignments and criteria. Greater faculty coordination could improve the consistency and comparability of results.
- Discontinuation of eLumen made it difficult to analyze assessment data from the previous cycle.

- Transitioning to CurrIQunet META will require time and guidance for faculty to become familiar and benefit from the tools available.

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

- Student Headcount is 2225, Total Course Enrollments 2367
- That is up 6.8% and 8.8% since AY 24/25 and 30% growth since post-covid nadir in enrollment in AY 22-23
- 104% enrollment in Fall 2025 and 107% enrollment in Spring 2026

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.

- Using Point Percentage Gap method, disproportionate impacts were found for African American students (n=79, Success Rate = 66%) and students who reported their gender as Other (n=49, SR = 69%). Other student groups with success rates below that of program-wide 81% were Hispanic/Latino (n= 757, SR = 77%), Pacific Islander (n=11, SR = 55%), Students with a disability (n = 227, SR = 76%). While these did not meet the threshold for the PPG method, they should also take into consideration.
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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).

- Program Wide - DE Success: 77.8%, Not DE: 84.1%
- Wide variation, so can't tell if due primarily due to DE modality or other factors.
- Student success in lecture-only asynchronous courses fairly high (Bio 20 = 91.5%, Bio 40 = 87.2%)
- Bio 30 and Bio 7B tend to see lower success in hybrid sections.
    - Bio 7B success rates: F2F = 94.4%, Hybrid = 76.5%
    - Bio 30 success rates: F2F = 71%, Hybrid = 62.7%, Fully online synchronous = 81.2%

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

- In support of student learning and access, a proctored testing center would be extremely valuable. Students occasionally miss scheduled exams due to illness, family responsibilities, or other unavoidable circumstances. A testing center would provide a secure, consistent option for make-up exams while reducing the logistical burden on individual instructors especially our adjuncts. Proctoring is particularly important for maintaining exam integrity, as completing an exam online from home does not provide the same controlled testing environment.

- *Add or remove bullets as needed*

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 I nteraction (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.	
X	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)
X	Provides direct instruction over Zoom (e.g. regularly scheduled live online class sessions in synchronous/hybrid/hyflex courses)
X	Provides direct instruction through instructor-created videos (e.g. lecture videos created using Studio in asynchronous courses)
X	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)
X	Facilitates discussions (e.g. through Canvas discussion boards, Pronto, Studio, or Hypothesis)
X	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)
X	Responds to students' questions (e.g. through timely responses to student messages in Canvas Inbox, discussion boards, social annotation assignments)

X	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?

It is challenging when students "disappear" and don't respond to email check ins. It is hard to discern if they are a fake student or something has happened to them or they should be dropped. Many students don't pay attention to Canvas announcements or email instructions so it is hard to communicate with them about assignments. The instructor often has to respond to the same student inquiry over and over. Part of the barrier may be that all emails and announcements go to their zonemail. Clearer instructions for students on Canvas and other places how to set up Canvas notifications and forward zonemail inbox to their regular email.

Section 5: Program Review Feedback

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

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

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