Post- Program Review Response and Action Plan

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Instructions: *The program prepares an action plan for the next 5 years. This step is an opportunity for the program to reflect on the findings of the self-study, and external and internal program review reports. Through the development of the action plan, the program may address areas of concern with plans for improvement and/or new opportunities. Categorize all actions into one of the following areas: Program/Curriculum, Student Learning & Assessment, Student Success, Faculty, Staff, Facilities/Space, Equipment, Computing Resources, Operating Budget and Other. The Dean of the College reviews the self-study, program review reports, and action plan draft, and provides their recommendation(s). It is advisable that a draft of the action plan be shared with the program's tenured/tenure- track faculty prior to the discussion with the dean. Program tenured/tenure-track faculty sign the final document after discussion with the dean.*

Name of Degree Program: Bachelor of Science in Physics

Name of Department: Physics and Astronomy

Name of College: Science

Program Response:

An external review of the B.S. in Physics program at Cal Poly Pomona was conducted in Spring 2024 by Professor Jennifer Klay of the Physics Department at Cal Poly San Luis Obispo and Dr. Brian Monacelli (Optical Engineer at Jet Propulsion Laboratory and Adjunct Professor at Pasadena City College). The associated internal review was conducted by Professor Stephen Osborn (Department of Geological Sciences, College of Science) and Professor Kimberley Miller (Department of Agricultural Science, College of Agriculture). We are deeply grateful for the time and effort given by these reviewers. In meetings with multiple stakeholders, they asked thoughtful questions, listened carefully, and provided insightful recommendations.

Both the external and internal review teams highlighted our department's commitment to student success, in particular the strong student community and exceptional connections to our large and ever-growing network of alumni and industry representatives. The external reviewers wrote that "The qualify of undergraduate education is obviously high" and "Student displayed a strong sense of belonging and camaraderie." They also noted our high level of research activity engaging undergraduates, and the availability, relevance, and good condition of our laboratory equipment.

The internal reviewers noted a particular point of pride for our department, our professional development and career readiness programs connect current students with alumni and members of our Industry Advisory Board at several formal events and workshops each year. It should be stressed that the rapid success of these programs would never have been possible without the leadership and on-the-ground effort of Professor Alexander Small, who during his tenure as Department Chair cultivated these relationships, and spun up these activities in their current form. Professor Small also led the Department through this program review process and authored our extensive self-study.

The internal reviewers highlighted the integration of activity and recitation sections throughout our core curriculum as a particular strength of student success. The external reviewers recommended strengthening the involvement and support of our undergraduate Learning Assistants program, another key pillar of student success in our program.

Soon after the review concluded, an unexpected and serious medical issue upended our department leadership, which inevitably affects all aspects of our program review response, and in many cases will delay action by at least a year, as long-term planning is best done with a permanent Chair in place, while for the current year we have an Interim Chair. We had planned to hold a department retreat in the current academic year (2024-25), with a goal of planning strategically for our next several tenure-track hires, discussing curriculum changes, and developing a shared vision and values statement. We hope to regroup and perform this important long-term planning work next year (2025-26).

The primary challenges identified through the review involve workload pressures on faculty and staff. In particular, tenure-track faculty report insufficient time to conduct research with students, thanks to high teaching and/or service workloads. The conversion of one full-time administrative support coordinator to a half-time position was cited as a factor in pushing ever more administrative work to faculty, and mandates pushed from the administration and IT, without sufficient faculty consultation was another. One particularly concerning challenge noted by the external reviewers was low staff morale, a feeling among administrative staff that “they are powerless and underpaid, feeling uncomfortable and unsupported by [the College].”

After closely reading the lists of challenges and recommendations provided by the reviewers, the tenure-track faculty met to discuss our priorities. We developed a list of proposed actions and implemented an online survey of the tenure-track faculty. The survey responses provided a clear set of short- and long-term priorities for proposed actions, summarized in the tables below.

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Short Term Priorities – Minimum of 5 key items identified that will take 1 to 2 years to implement

Category	Proposed Action	Responsible Party	Resources	Timeframe – Start and End
Faculty, Student Success	Pursue mechanisms, policies, and funding to increase time for faculty to conduct research with students.	Department Chair and College Development Officer	Financial	2025–2027
Student Success	Increase support and resources for students interested in applying to graduate school.	Department Tenure-Track Faculty	Time	2025–2027
Student Learning & Assessment	Track declared physics majors into the same sections of PHY 1510 and PHY 1520.	Department Chair, Scheduler, and College Advising Center	Time	2025–2027
Faculty	Provide a support structure to increase opportunities and enhance the quality of faculty peer mentorship.	Department Tenure-Track Faculty	Time	2025–2027
Other	Develop a department-level vision and values statement.	Department Tenure-Track Faculty	Time	AY 2025–2026

Long Term Priorities – Minimum of 5 key items identified that will take 3 to 5 years to implement.

Category	Proposed Action	Responsible Party	Resources	Timeframe – Start and End
Faculty	Increase tenure-track faculty density in physics and astronomy.	Provost	Financial	2025–2030
Faculty, Staff	Identify and remedy administrative and service workload inequities among faculty and staff.	Department Chair and Associate Chair	Time, Financial	2025–2030

Student Success	Increase the percentage of physics majors who identify as women and/or gender minorities.	Department Outreach Committee, University Recruitment	Time, Financial	2025–2030
Facilities/Space	Identify and obtain new physical spaces for research and instructional activities.	Dean	Financial, Physical	2026–2030
Student Learning & Assessment	Ensure more uniformity in the curricula and grading standards among the various sections of our lower-division service courses.	Department Faculty, Add new coordinator position	Time, Financial	2027–2030

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Department Faculty Name	Signature
Nina Abromzon	NINA ABRAMZON
Suketu Bhavsar	Professor Emeritus
Jorge Botana Alcalde	Jorge Botana
Siyu Li	Siyu Li
Steven W. McCauley	Professor Emeritus
Sujoy Modak	Sujoy Modak (May 29, 2025 13:34 PDT)
George Rainey	Professor Emeritus
Qing X. Ryan	Qing Ryan Qing Ryan (May 29, 2025 13:42 PDT)
Homeyra R. Sadaghiani	Homeyra Sadaghiani
Ertan Salik	
Krishna P. Sigdel	Krishna Sigdel Krishna Sigdel (Jun 2, 2025 11:04 PDT)
Kurt G. Vandervoot	Kurt Vandervoort
Coral Wheeler	Coral Wheeler (Jul 11, 2025 17:57 PDT)
Shohreh Abdolrahimi	on Sabbatical - Spring 2025

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Department Faculty Name	Signature
Breanna A. Binder	on Sabbatical - Spring 2025

Instructions: *All tenured and tenure track faculty should review the response and action plan, and sign the document after discussion between the college dean and department chair. The final signed copy should be sent to the Office of Assessment and Program Review, apr@cpp.edu.*

Matthew S. Povich Matthew Povich (May 9, 2025 10:32 PDT)

Department Chair

Alison Baski Alison Baski (Jul 15, 2025 05:29 PDT)

Dean

Jocelyn S. Chong Jocelyn Chong (Jul 15, 2025 07:57 PDT)

Office of Assessment and Program Review