Cal Poly Pomona

Post- Abbreviated Program Review Response and Action Plan

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(s): All ABET-Accredited Undergraduate Engineering and Engineering Technology Programs

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Name of Department(s): Aerospace Engineering, Chemical & Materials Engineering, Civil Engineering, Electrical & Computer Engineering, Electromechanical Engineering Technology, Industrial & Manufacturing Engineering, Mechanical Engineering

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Name of College: College of Engineering

Program Response:

The 2023 ABET accreditation review included an on-site evaluation conducted by a team of ABET evaluators that visited the campus from October 15 to 17, 2023. The accreditation process concluded on August 15, 2024, when the Dean of Engineering was notified that all COE ABET accredited programs were reaccredited through September 30, 2030.

In the spring of 2025, an internal review of the 11 College of Engineering (COE) B.S. engineering and engineering technology programs was conducted as part of the CPP Academic Program review process. Professors Kathryn McCulloch, Amy Gimino, Jian Lee, and Hao Ji conducted the evaluation, and as part of the process, they met with COE faculty on Friday, April 18, 2025, and with COE department chairs and assessment leaders on Tuesday, April 22, 2025.

We would like to thank all the reviewers. They asked insightful questions, listened deeply, provided helpful structure to think about our strengths and challenges, and made important recommendations.

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The 2023 ABET reaccreditation was successful and resulted in the continuation of the accreditation of all 11 engineering and engineering technology programs through September 30, 2030. The ABET final statements noted strengths and concerns.

> The COE programs' strengths are associated with high engagement with practicing professionals at various levels in the curriculum, especially in the senior design project. Which offers the opportunity to have state-of-the-art experience with professional practices and processes for both students and faculty. Interactions that also enhance student's workforce-readiness skills, as well as a strong and secure stream of opportunities for employment before and at the time of graduation. However, it was noted that the activities were not sustainable with the existing resources available.
>
> The concern noted by the ABET evaluation team was related to the understaffed COE advising center, which was negatively impacting the students' academic progress. The number of faculty members to cover the course section's demands was cited as a concern due to the continuous increase in the student body.

The internal review team provided detailed discussions of strengths, challenges, and recommendations as well, directly connecting these with the various areas that Cal Poly Pomona considers critical for student success and excellence such as Inclusive Polytechnic Identity, Department Structure and Organization, Assessment, Technology and Support; as well as the GI 2025 California State University initiative.

Briefly, the internal review team noted the following **strengths**:

- "The College of Engineering holistically incorporates the polytechnic identity at all levels of the program, including curricular elements and co-curricular elements. Some highlights of the inclusive polytechnic identity are listed here and are incorporated into all programs." The highlighted examples are the First Year Experience (EGR 1000 and EGR 1000L), laboratory-based courses/corequisites (infused throughout programs provide opportunities for students to connect theories and concepts to real engineering problems and applications), the senior design capstone project (required for all students, and that is used to bring industry practitioners to collaborate with faculty and students), the innumerous student clubs and student competitions, faculty research projects, among others.
- The high engagement of faculty and staff to serve students was highlighted too. Noting the creativity of both small and large departments to manage the daily, short term and long term tasks, curriculum updates and development, assessment activities, laboratory management, continuous incorporation of technology and the proactive engagement of the COE advising center to strategically design programs

and campaigns to keep students on track for graduation by directing them to enroll in the appropriate courses during priority/regular registration and summer orientations.

The internal review team noted **significant sustainability challenges**:

- Facilities and space (classroom, laboratories) are a limiting factor, for all COE programs, on the scope, reach, and number of learning-by-doing opportunities.
- Demands on faculty time limits the number of faculty-led research projects, engagement as club or competition advisors, engagement with service activities (assessment, curriculum and others) among others. As a result, faculty has unsustainable workload, and some students interested in joining a research project or enrolling in a lab course may not be accommodated.
- "*The College draws heavily on part-time and non-tenure track faculty to teach courses within the various programs…some lecturer faculty may feel overlooked or excluded from department culture.*" There is a pressing need to engage the NTT and part-time faculty.
- Growth of some programs has led to reaching the ceiling in terms of capacity, and further growth requires additional faculty and resources.
- The number of academic advisors is not sufficient to adequately serve the large number of students enrolled in the COE programs.
- Limited funds are available to support student retention efforts.
- There is a need for upgrades in certain classrooms, laboratories, and facilities.
- Grant support (pre- and post-) is not sufficient. Faculty spend more time than they should handling the administration of their external awards.

The internal review team concluded their report by noting the following:

- Additional University support related to infrastructure and space should be considered to extend the reach of the learning-by-doing COE experiences to as many students as possible.
- The University should explore creative avenues to increase available teaching and lab spaces across campus to maximize usage.
- The University should work to fill the open engineering academic advisor roles to meet the recommended student to academic advisor ratio.
- More resources to engage NTT, to hire new TT faculty, and to support current faculty balancing their workload as the COE student body grows.

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We want to emphasize that the workload challenges and the lack of space to engage in learning-by-doing activities are real and significantly impact faculty and staff work.

We read closely the comments provided by the ABET team and internal review team. We compiled a list of potential short-term priorities and a list of potential long-term priorities to pursue.

The chairs of the COE departments, along with members of the assessment committees, reviewed and discussed the internal report, giving particular attention to the challenges and recommendations identified by ABET final statement and the internal review team. On September 26, 20025, COE members met to evaluate, rank and determine both short-term and long-term priorities, which were subsequently used to develop the action plan outlined below. The list below shows the order of the priorities decided at the September 26, 2025, meeting.

Short Term Priorities:

1. Provide additional assigned teaching spaces outside of the assigned engineering classrooms. A shortage of proper teaching spaces (classrooms) to accommodate additional sections of high-demand classes is a serious issue, with the continuous growth of the college.
2. Increase the support to faculty with external grants (pre- and post-award).
3. Expand faculty-led research projects or other learn-by-doing opportunities currently limited by insufficient faculty and staff support.
4. Facilitate cross-department meetings and communication to share opportunities across the College and departments.
5. Create ways to engage lecturer faculty so they are not overlooked or excluded from department culture.

Long Term Priorities:

1. Expand the size of learning-by-doing facilities. Facilities and space are limiting the scope, reach, and number of students engaged in learning-by-doing opportunities.
2. Upgrade classrooms, laboratories, equipment, and facilities.
3. Hire additional tenure-track faculty (mentioned as an ABET concern and a challenge in the internal review).
4. Increase resources to support the programs (and faculty in the programs) in building a sustainable process to continue their engagement with industry, advising clubs, competitions, among other activities (strength with sustainability and resources issues identified by both the CPP internal reviewers and by the ABET review).
5. Hire more academic advisors for the College of Engineering majors, and for targeted interventions for at-risk students.

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Please see the attached tables for category, responsible party, resources, and timeframe for each of these Short-Term Priorities (Table 1) and Long-Term Priorities (Table2).

Table 1-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
Inclusive Polytechnic Identity, Support, and GI 2025	Provide additional assigned teaching spaces outside of the assigned engineering classrooms.	University	Returning the COE rooms back to the college to use for scheduling classes, e.g. Building 9 classrooms. The availability of classrooms should correlate with the growth of the college.	Spring 2026 – Fall 2028 and beyond
Support	Increase the support to faculty with external grants (pre- and post-award).	University, Associate Dean for Research and Industry Engagement, Office for Student Projects and Research through Industry Engagement (OSPRIE), Center for Exploration and Space Technologies (EaST)	Funding for a dedicated staff member in the COE to support grant writing and pre- and post-award processes.	Spring 2026 – Fall 2028 and beyond
Inclusive Polytechnic Identity	Expand faculty-led research projects or other learn-by-doing opportunities currently limited by insufficient faculty and staff support.	University, Dean	Return and enhancement of teacher-scholar awards to encourage engineering faculty scholarly work. Other financial support linked to the academic programs to support the expansion of the learn-by-doing opportunities in the COE.	Spring 2026 - Fall 2028 and beyond

			Reinstatement of the teacher-scholar program.	
Department Structure and Organization	Facilitate cross-department meetings and communication to share opportunities across the College and departments. Organize bi-annual research/teaching/service meetings among engineering faculty.	Dean, and Departments	Financial resources for covering the cost of food and refreshments, and communication resources.	Spring 2026, then one meeting per semester
Department structure and organization	Create ways to engage lecturer faculty so they are not overlooked or excluded from department culture. • Provide reasonable space for office hours • Involve lecturer faculty in: - Advising Senior projects/MS Projects - Department Meetings and Communications - Bi-annual college faculty meeting - Recognitions of their experience and accomplishments	University and Dean (to provided financial resources and space resources) Departments (for the internal department affairs engagement)	Dean's office: Financial resources for hiring adjuncts as project advisers, as well as resources for evaluating adjuncts for awards and recognitions; space for office hours. University: Identification of under-used office spaces on campus with reasonable distance from COE to allocate them to adjunct faculty in the COE. Spaces such as those in business or student services building. Financial resources to hire adjuncts and to organize activities to engage them in the department's affairs.	Starting Spring 2026, allocate budget for hiring adjuncts as project advisers. Spring 2026 – Spring 2027: find unused office space for allocation to adjunct faculty.

Table 2- 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
Inclusive Polytechnic Identity	URGENT: Expand the size of learn-by-doing facilities.	University, Dean	Funds for construction of new buildings. Off-site facilities to rent (e.g. Innovation Village)	2026 – 2036 - Seek funding for new buildings, planning and construction. 2026 - 2029 Rent off-site facilities ready for learn-by-doing activities.
Technology	URGENT: Upgrade classrooms, laboratories, equipment, and facilities. Modernize laboratories.	University, Dean, Advancement Directors	University: Financial resources for modernization of existing infrastructure and equipment acquisition; philanthropic activities. Dean's office: Philanthropic activities and seeking grants.	2025 - 2029.
Department Structure and Organization	Hire additional tenure - track faculty to align with the enrollment trends and decrease student/faculty ratio to 40 students/faculty across all departments.	University	University financial resources	2026 - 2031.
Inclusive Polytechnic Identity	Increase resources to support the programs (and faculty in the programs) in building a sustainable process to continue their engagement with industry, advising clubs,	University, Dean, Advancement Directors	University: Financial resources. Dean: 1) Provide standard procedures for advancement director,	2025- 2028.

	competitions, among other activities Additional staff (administrative support, laboratory managers/ coordinators, technicians, student assistants) to support the programs' activities.		clubs and faculty to engage donors and obtain donations. 2) Create a system and dedicate financial resources to providing supervision of students' activities during off hours (student assistants/technicians, faculty with assigned time as lab managers, or technicians that can supervise students). 3) Identify strategies to increase the number of staff (administration and technician) support.	
GI 2025	Hire more academic advisors for the College of Engineering majors and targeted interventions for at-risk students. With the goal to achieve 400 students/adviser goal.	University - Office of Student Success	Financial resources	2026-2031. Hire 3 advisors/year for the next 5 years.

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Signature Page

Aerospace Engineering Faculty Name	Signature and Date
Subodh Bhandari (Department Chair and Assessment Committee)	10/24/2025
Zahra Sotoudeh (Assessment Committee)	Zahra Sotoudeh 10/24/2025

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. Please add additional signature lines as needed. The final signed copy should be sent to the Office of Assessment and Program Review, apr@cpp.edu.*

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Chemical and Materials Engineering Faculty Name	Signature and Date
Laila Jallo (Department Chair and Assessment Committee)	Laila Jallo (Oct 24, 2025 14:35:27 PDT) 10/24/2025
Huseyin Ucar (Assessment Committee)	Huseyin Ucar 10/24/2025

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. Please add additional signature lines as needed. The final signed copy should be sent to the Office of Assessment and Program Review, apr@cpp.edu.*

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Civil Engineering Faculty Name	Signature and Date
Victor Okhuysen (Acting Department Chair)	Victor Okhuysen Victor Okhuysen (Oct 24, 2025 15:21:09 PDT) 10/24/2025
Nicole Elias (Assessment Committee)	Nicole Elias 10/24/2025
Siddharth Banerjee (Assessment Committee)	10/24/2025
Seema C Shah-Fairbank (Assessment Committee)	Seema Shah-Fairbank 10/24/2025

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Electrical and Computer Engineering Faculty Name	Signature and Date
Halima El Naga (Department Chair)	Halima El-Naga 10/25/2025
Beverly Abadines Quon (Assessment Committee)	Beverly Abadines Quon 10/25/2025 Beverly Abadines Quon (Oct 25, 2025 21:52:14 PDT)
Hyoung Soo Kim (Assessment Committee)	Hyoung Soo Kim 10/26/2025

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. Please add additional signature lines as needed. The final signed copy should be sent to the Office of Assessment and Program Review, apr@cpp.edu.*

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Electromechanical Engineering Technology Faculty Name	Signature and Date
Farhana Abedin (Department Chair and Assessment Committee)	F. Abedin 10/27/2025
Scott M Boskovich (Assessment Committee)	Scott Boskovich 10/27/2025
Jose Alfredo Millan Higuera (Assessment Committee)	Jose A Millan 10/29/2025

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. Please add additional signature lines as needed. The final signed copy should be sent to the Office of Assessment and Program Review, apr@cpp.edu.*

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Industrial and Manufacturing Engineering Faculty Name	Signature and Date	
Shokoufeh Mirzaei (Department Chair)	Shokoufeh Mirzaei	10/30/2025
Payam Parsa (Assessment Committee)	Payam Parsa	10/30/2025
Ellips Masehian (Assessment Committee)	Ellips Masihi (Oct 30, 2025 09:12:32 PDT)	10/30/2025

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. Please add additional signature lines as needed. The final signed copy should be sent to the Office of Assessment and Program Review, apr@cpp.edu.*

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Mechanical Engineering Faculty Name	Signature and Date
Henry Xue (Department Chair)	Henry Xue 10/30/2025
Brian J Ramirez (Assessment Committee)	10/30/2025
Paul M Nissenson (Assessment Committee)	10/30/2025

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. Please add additional signature lines as needed. The final signed copy should be sent to the Office of Assessment and Program Review, apr@cpp.edu.*

Andrew Ketsdever
Andrew Ketsdever (Oct 30, 2025 10:03:07 PDT)

10/30/2025

Click or tap to enter a date.

Dean

Jocelyn S. Chong
Jocelyn S. Chong (Oct 30, 2025 11:17:00 PDT)

Click or tap to enter a date.

Office of Assessment and Program Review

Form updated December 1, 2022