De Anza College

Program Review – Annual Update Form

1. **Briefly describe how your area has used the feedback from the Comprehensive Program Review provided by RAPP members (if unsure, request the feedback form from your dean/manager).**

Feedback from the Comprehensive Program Review was instrumental in identifying areas of improvement and prioritizing strategies to enhance student outcomes. Based on the feedback, the department focused on the integration of equity-driven practices and alignment of resources with departmental goals like the special projects for students and Guided Pathways workshops focusing on mental health, transfer discussions, industry internship, interview- preparation, and more.

2. **Describe any changes or updates that have occurred since you last submitted program review (comprehensive program review submissions)**

Engineering Department has demonstrated a strong commitment to academic excellence and student success. We are:

- Collaborating with the Math Department to develop a certificate program, demonstrating interdisciplinary collaboration and meeting emerging student needs.
- Developing transfer level engineering certificates, providing students with valuable specialized skills and enhancing their career prospects.

Despite these achievements, the department continues to face a critical faculty shortage. The rapid growth in student enrollment and the increasing demand for engineering courses have outpaced our ability to maintain adequate staffing levels.

3. **Provide a summary of the progress you have made on the goals identified in your last program review (as included in the comprehensive program review).**
    - Successfully expanding the curriculum to include certificates that better prepare students for academic and career pathways.
    - Strengthening interdisciplinary collaboration through the new certificate with the Mathematics Department.
    - Making substantial updates to course content to align with current educational and industry standards.

4. **If your goals are changing, use this space to provide rationale, or background information, for any new goals and resource requests that you'll be submitting that were not included in your last program review.**
    - Expanding the integration of programming and data analysis into the engineering curriculum to align with modern industry demands.
    - Increasing outreach efforts to promote equity and access in engineering, particularly for disproportionately impacted groups.

    Engineering Department faces a critical resource imbalance. While student demand for engineering courses continues to surge, the number of full-time faculty has remained stagnant. This disparity significantly impacts our ability to:
    - **Provide high-quality instruction:** The current faculty-to-student ratio strains our ability to deliver effective instruction and support student learning effectively.
    - **Meet student needs:** Growing enrollment necessitates expanding course offerings, which becomes increasingly challenging with limited full-time faculty.
    - **Advance curricular development:** A robust full-time faculty is crucial for developing innovative curricula, incorporating cutting-edge pedagogical approaches, and ensuring our programs remain relevant and responsive to the evolving needs of our diverse student body.
    - **Foster a strong academic community:** Full-time faculty play a vital role in mentoring students, advising on academic pathways, and contributing to the intellectual life of the department.

    To address this pressing issue and ensure the continued success of our engineering students, we urgently request the approval of one new full-time faculty positions. This strategic investment will empower the department to effectively serve our growing student population, maintain high academic standards, and strengthen our position as a leader in engineering education.

5. **Describe the impact to date of previously requested resources (personnel and instructional equipment) including both requests that were approved and were not approved. What impact have these resources had on your program/department/office and measures of student success or client satisfaction? What have you been able to and unable to accomplish due to resource requests that were approved or not approved?**

    We were able to purchase the equipment needed for our new Circuits Analysis Lab course which will begin next fall. We do need equipment for our newly designed Materials course which should be in high demand, considering the jobs and area we are in. Lack of funding for advanced equipment and tools limits the ability to fully integrate technology into certain courses.
    Engineering Department faces a critical faculty shortage. Growing student demand cannot be met with the current number of full-time faculty, impacting instruction quality,

curriculum development, and student support. To address this, we urgently request the approval of a new full-time faculty position.

6. **How have these resources (or lack of resources) specifically affected disproportionately impacted students/clients?**

   The lack of advanced lab equipment and additional staffing creates challenges in offering equitable access to high-quality learning experiences. This is particularly evident in classes requiring individualized support or technology integration.

7. **Refer back to your Comprehensive Program Review under the section titled Assessment Cycle as well as the SLO website (https://www.deanza.edu/slo/) for instructional programs. In the table below provide a brief summary of one learning outcome, the method of assessment used to assess the outcome, a summary of the assessment results, a reflection on the assessment results, and strategies your area has or plans to implement to improve student success and equity. If your area has not undergone an assessment cycle, please do so before completing the table below.**

Table 1. Reflection on Learning Outcomes (SLO, AUO, SSLO)

Learning Outcome (SLO, AUO, SSLO)	The SLO statement for Engineering 37 (introduction in Circuit analysis)is for winter quarter 2024 (Face to face) -Analyze the electrical behavior of DC and AC circuits including the first and second order circuits using various circuit analysis techniques by calculating volts, ohms, and amps
Method of Assessment of Learning Outcome (please elaborate)	This is one of the final exam questions where students needed to solve the problem using AC phasor equations and following the Rubric /methods provided during class.
Summary of Assessment Results	-Number of students exceeding expectation (3) -Number of students meeting expectation (7) -Number of students approaching expectations (2) -Number of students who do not meet this outcome (3)

Reflection on Results	Overall, the students have good understanding of AC analysis. Next time I focus on the more applications and doing more practices.
Strategies Implemented or Plan to be Implemented (aka: enhancements)	The students who consistently, do their homework, participated in class discussion, and attended class also consistently do well on their class assessments. Therefore, my focus will be on encouraging students to participate more.

Done? Please email this form to your dean/manager.

8. Dean Manager Comments:

Our Engineering department is thriving and expanding, driven by the dedicated efforts of its sole full-time faculty member. Currently, the department is actively developing new curriculum for courses and certificates, with a Circuits Analysis Lab set to launch this fall, made possible through recently allocated funding for essential equipment. Looking ahead, the department is preparing to introduce a new materials course scheduled for Fall 2026, but acquiring crucial equipment for this course remains a pressing need.

Additionally, the department would greatly benefit from the addition of a new full-time faculty member to help sustain and support its current growth trajectory. With numerous opportunities for expansion in both transfer pathways and Career and Technical Education (CTE), the department is actively exploring and pursuing new initiatives that could significantly enhance student outcomes. Strengthening faculty support will be key to fully realizing this potential and continuing to meet the needs of students and industry alike.