

De Anza College

Program Review – Annual Update Form – Fall 2025

1. Department/Area Name
Environmental Studies/Science, ERMPP, Energy and Facility Management
2. Name of individual(s) completing the form:

Alicia de Toro and Gayatri Pal (ES/ESCI), Joshua McCluskey (ERMPP), Bill Roeder (Energy and Facility Management)
3. Briefly describe how your area has used the feedback from the Comprehensive Program Review and Annual Program Review Update provided by RAPP members over the past two years (if unsure, request the feedback form from your dean/manager).

For Environmental Studies/Science:

Since the 2023 Comprehensive Program Review, feedback from RAPP has been instrumental in guiding our efforts. This current submission reflects the recommendations outlined in the Winter 2025 Reflection provided by the committee.

During 2024–2025, the department focused primarily on hiring a full-time tenure-track faculty member. As of Fall 2025, the new faculty member is completing phase one of the tenure process. While the RAPP reflective report noted that we did not provide sufficient detail on the hiring timeline, this was due to uncertainty at the time as we were working under the directive of the division's dean.

The Winter 2025 Reflection also indicated that we failed to include examples of culturally inclusive practices. At the Kirsch Center, we actively celebrate major international holidays to foster cultural inclusivity, including Día de los Muertos, Diwali, Earth Day, and Lunar New Year.

In addition, the Kirsch Center features culturally inclusive spaces. The Environmental Pioneers Wall highlights winners of the Goldman Environmental Prize, an international award that recognizes environmental justice efforts. Another example is the Environmental Justice Wall, which uses donated environmental activism artwork to transform the upstairs student eating area into an educational space.

Our strongest initiative is the Monarch Butterfly Project, where students participate in collecting, nurturing, and releasing monarch butterflies. This project holds symbolic significance for many students, as the monarch butterfly is widely recognized as a symbol for Dreamers.

Within our courses, Dr. Pal integrates cultural awareness through activities such as the *Role Model in the Spotlight* assignment, which highlights diverse cultural and demographic

contributions to environmental science. Additionally, Dr. De Toro incorporates a scavenger hunt that introduces students to the Kirsch Center's environmental design and requires them to explore Environmental Justice spaces. Students then share insights on the connection between environmental issues and social justice based on what they learned from these exhibits.

For ERMPP –

Feedback from the RAPP called for more detail and explanation of previous RAPP comments. The Environmental Resource Management and Pollution Prevention CTE (ERMPP) program has used the RAPP feedback and provided as much relevant detail as possible to this year's review. To address RAPP comments to Progress Goals 3&4 the ERMPP has implemented tighter student requirements on for on-line sections. If students do not complete the first week's assignments on time they are removed from the course before the census date. This happens only after several (2-3) attempts to contact the student. The registrar is also checking enrollment for valid students, but this has not resulted in fewer fraudulent students currently. As soon as the registrar drops one batch of students, more register shortly after. The ERMPP has also noticed an increase in AI driven student responses to the first week's assignments to stay enrolled. To combat this, ERMPP syllabi also requires students to reply to instructor inquiries and be able to schedule a meeting with the instructor within 7 days or they will be dropped (during regular business hours). Even with this measure in place, ERMPP still experiences students that disengage after census, and need to be dropped. The increased scrutiny at the start of the quarter has led to improved success and retention rates throughout all sections but also takes away time that could be better spent welcoming students or creating more substantive interactions during the first weeks of the course. It also limits legitimate students' ability to register for the courses. It may also be necessary to explore changing the modality for ERMPP courses away from asynchronous to fully address this issue. The ERMPP does see the need for program resources to address this issue currently. But we will continue to work with the Bio, Health, Environmental Studies Dean to advocate for the Academic Senate and the College to meaningfully address this issue and, if necessary, alter the modality of the impacted courses.

For Energy and Facility Management -

As indicated by RAPP's areas for improvement in the last program review update, we have actively and effectively worked with Admissions and Records to scrub late class rosters multiple times before our classes begin 6 weeks into the quarter. This has resulted in less drops of non-engaged students the first week of class and a more realistic class roster of actual students who wish to learn.

4. Describe any changes or updates that have occurred since you last submitted program review (program review [submissions](#)).

Several significant updates have occurred in the department

Faculty Hiring: The department successfully hired 2 full-time tenure-track faculty members. As of Fall 2025, the new faculty members are completing phase one of the tenure process, and we are optimistic about the future growth and stability of the programs.

Curriculum Development: The Environmental Science for Transfer (AS-T) degree has been officially published in the college catalog, providing students with a clear pathway to transfer and strengthening academic offerings.

Community Engagement: In Spring 2025, the department partnered with De Anza Student Government to host an Earth Day event at the Kirsch Center, the first since the pandemic. This event reestablished an important tradition of environmental awareness and student engagement. The ERMPP program has a new lead instructor. The program is undergoing a thorough evaluation to identify curriculum updates and create a new advisory board. We expect some minor changes in the short term, such as adding no credit courses, and some curriculum changes once the new advisory board has been convened and provides feedback.

5. Provide a summary of the progress you have made on the goals (i.e., OKRs for Student Services) identified in your last program review (as included in the comprehensive program review or annual program review update).

Goal title	Goal description	Responsible parties	Collaboration with....	What evidence have you used to monitor progress?	How have you assessed your goal?	What changes have been made based on the assessment?
Student Success	Grow Student Success Rates in All Demographic Groups	Department faculty, staff, BHES counselor and Dean	Financial Aid, De Anza Connect	Student Success Rates as noted in the ES Program Review Datasheet	Reduction in the equity gaps amongst different populations and increase in success rates for all student groups per the ES Program	The ES/ESCI department has implemented RSI to appropriate courses. And implemented free online textbooks. Classes have also been updated to

					Review Datasheet	include more equity approaches to assignments. For example, ERMPP started using the Harmony Discussion utility for Canvas that allows students to post videos, audio files, pictures, and comments in discussions. ERMPP also works from campus providing a choice, equity, for students as they can choose either meet in-person or online for any questions or issues.
Certificates and Degrees	Create ADT for Environmental Science	Department faculty, BHES Dean and counselor	Curriculum committee, Articulation office	Creation of a degree.	The degree exists in the college catalog.	Goal adjusted to include additional degrees and certificates.

Maintain and grow enrollment of Black, Latinx and Filipinx students as a % of total student enrollment	Increase in enrollment of underserved student groups	Faculty, BHES counselor and dean,	Outreach office, CTE department,	Program Review data sheets	Program Review: Compared 2024-2025 student enrollments to 2023-2024 student enrollments	Black and Filipinx enrollment up 2%, Latinx enrollment down 1%
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6. If your goals (i.e., OKRs for Student Services) are changing or you are adding a new goal(s), please include them below. If new goals require resources, please list requested resources that were not included in your last program review.

Goal title	Goal description	Responsible parties	Collaboration with....	What evidence will you use to monitor progress?	How will you assess achievement of the goal?
Certificates/ Degrees/Non-Credit	Increase student opportunities	Faculty, BHES counselor, Dean	Curriculum and Articulation	Data sheets from office of instructional research	Increase in number awarded
Hiring of new faculty in CTE program	Hiring of new and more diverse faculty	BHES Dean, faculty recruitment	District and college HR	New personnel	Courses with new faculty

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

The addition of new faculty in the Environmental Studies and Sciences department has been highly beneficial. Their expertise has strengthened our instructional capacity and expanded opportunities for hands-on learning in both lecture and lab courses. With the addition of ERMPP faculty, students have gained back a single point of contact for the program, helping guide them and introduce them to the curriculum. In Energy and Facility Management, additional mathematics primers and lab resources from Strong workforce funding have allowed us to address and make progress on overall and underserved student success rates by allowing students to address mathematic deficiencies and more effectively participate in lab projects requiring synthesis of data and information.

The absence of all requested resources has limited our ability to provide students with some comprehensive laboratory experiences.

8. How have these resources (or lack of resources) specifically affected disproportionately impacted students/clients? If you have not requested or received resources, still describe how your area has been able to serve disproportionately impacted students/clients.

As indicated in the Program Review Datasheet for ES, we have increased student success rates of Black, Latinx and Filipinx students by 10% year on year.

According to the data available using the College Inquiry Tool in Portal the ERMPP program has high success rate for historically impacted students except for those that identify as Latinx. Although the success rate of Latinx students have increased since the 23-24 school year enrollment is still low (5-10 per section) for the South Bay Area demographics. It is clear that more outreach is needed to Latinx students (24% of headcount in 2024-25, a 7% decrease from 2021-22). To begin to address this ERMPP is creating a larger digital footprint to outreach local students, first with a vlog website where students can get to know instructors and the activities they are involved with outside of De Anza.

The lack of key instructional resources affects our disproportionately impacted students, who often rely on hands-on, experiential learning to reinforce complex concepts.

9. Refer back to your Comprehensive Program Review and Annual Program Review Update from the past two years under the section titled Assessment Cycle or the SLO website (<https://www.deanza.edu/slo/>). 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)

<p>Learning Outcome (SLO, AUO, SSLO)</p>	<p>ESCID001L - Environmental Science Laboratory</p> <p>Assess local open space areas such as major aquatic life zones (coastal wetlands, inland wetlands, and riparian) and terrestrial biomes (grasslands, forest, savannah and transitional areas (ecotones)) and the impacts on these systems by humans, such as human systems including sanitary landfills, sewage treatment facilities and others.</p>
<p>Method of Assessment of Learning Outcome (please elaborate)</p>	<p>Students will be participating in various activities in person every week to perform hands-on experiments in the laboratory, on campus, or go on a field trip. Typically, the students explore the campus to assess various environmental criteria and perform simple experiments that are aligned with the SLOs. The area of exploration includes the biodiversity lab in KC 120, KC building, our ESA garden, and other areas of the campus. The goal is to enhance their understanding of the key elements of biosphere, species interaction, ecosystems, and human impact on each of these areas. The weekly laboratory assignment requires the students to finish the assigned laboratory experiment by participating actively individually or within the group. The students in addition also require carrying out an independent research project following the steps of the scientific method on a topic relevant to the SLO. This involves carrying out primary research on the topic, carrying out experiments, documenting, analyzing results, and peer reviewing. Students present their projects during the final week where the greater De Anza community is also invited</p>
<p>Summary of Assessment Results</p>	<p>The desired outcome was to enhance their understanding of the key elements of biosphere, species interaction, ecosystems, and human impact on each of these areas. The overall course success is 82% and there is a 5% growth in success rate among the Hispanic, Latinx, and the African American showing the reduction of opportunity gap.</p>
<p>Reflection on Results</p>	<p>Over a period of 4 years the positive outcome of the Hispanic, African American have shown a better outcome. The retention rate has also increased among these student populations.</p>

Strategies Implemented or Plan to be Implemented (aka: enhancements)	Introduce sustainable laboratory initiatives to raise awareness and prepare for global climate change.
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Please email this form to your dean/manager.

10. Dean Manager Comments:

The Environmental Science Department continues to show positive growth and strong alignment with both institutional and workforce priorities. During this review period, the department enhanced instructional capacity through the addition of new faculty in Environmental Science, and Energy Resource Management Pollution Prevention (ERMPP), strengthening curriculum delivery, student support, and program sustainability.

A key advancement is the planned launch of a new Environmental Science degree, designed to provide a comprehensive academic pathway supporting both transfer and entry-level employment in environmental fields. This new degree responds to growing student interest and regional demand for environmental and sustainability-related careers.

The department also maintains strong Career and Technical Education (CTE) programs, including Energy Resource Management Pollution Prevention, and Building and Facilities Management. These programs continue to attract students seeking applied, workforce-focused training and are well aligned with industry needs in energy efficiency, environmental compliance, and facilities operations. Overall, the Environmental Science Department is well positioned for continued success through strategic faculty hiring, targeted program expansion, and a balanced mix of transfer and CTE offerings. Continued institutional support will ensure sustained growth and impact.

11. Vice President/Associate Vice President Comments:

The Environmental Studies and Sciences, ERMPP, and Energy and Facility Management programs continue to demonstrate strong alignment with institutional equity goals, workforce priorities, and transfer pathways. The successful hiring of two full-time faculty members has strengthened instructional capacity, expanded hands-on learning, and improved student support across lecture, laboratory, and field-based courses. The publication of the Environmental Science AS-T degree provides students with a clear transfer pathway, while CTE programs in ERMPP and Energy and Facility Management remain well aligned with regional industry demand. Student success rates for Black, Latinx, and Filipinx students continue to improve

through culturally inclusive curriculum, RSI implementation, and experiential learning at the Kirsch Center.