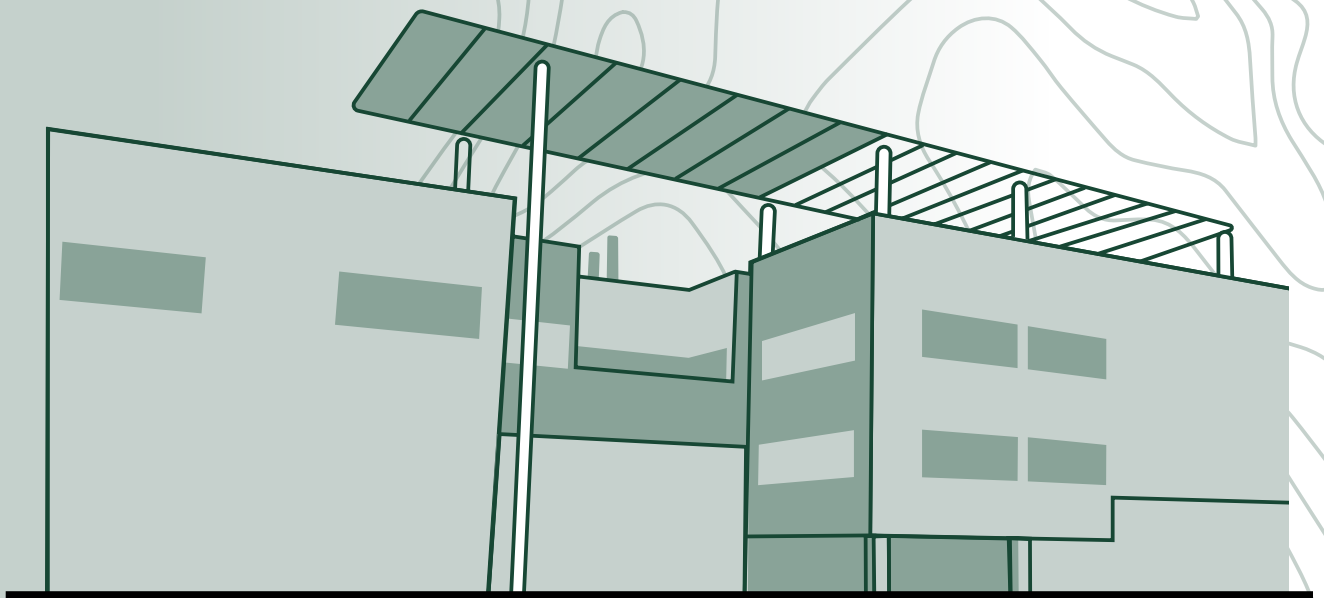




CAL POLY
College of Engineering

CAL POLY COLLEGE OF ENGINEERING DIVERSITY ACTION PLAN





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Welcome from the Dean

The Cal Poly College of Engineering is committed to embedding a focus on justice, equity, diversity and inclusion in all of our actions. In this document we will highlight how we have embedded these principles in our strategic plan and illustrate how our college community is coming together to accomplish our goals.

Across the college, faculty, staff and students have shown a tremendous willingness to do the hard work necessary to build a welcoming and supportive culture that creates a deep and



true sense of belongingness across our college community. We are pleased to see that our efforts are beginning to create change for the better, but we know that there is ongoing significant work to do to ensure that students, faculty and staff with personal identities that are historically underrepresented in engineering and computer science can thrive in our programs.

This strategic plan shows the path that we plan to take together. Engineering and computer science are creative and collaborative disciplines and require diverse perspectives to develop impactful approaches to the challenges that face our world. Our community knows that we will be successful only when each of us can reach our true potential, and that we must work together to remove the systemic and historical barriers that inhibit equitable success.

Sincerely,

Amy S. Fleischer

Dean, College of Engineering

Developing Our Plan

The Cal Poly College of Engineering first began working on a diversity action plan during the 2018-2019 academic year. The initial plan was developed as part of a campuswide collective impact initiative to effect change and was developed by a faculty, staff and student committee. This work resulted in our college diversity statement, and several short-term goals including:

- Show continual and measurable improvement in the diversity of the CENG community so that our students, faculty and staff reflect the demographics of the state of California, and exceed national averages for engineering representation;
- Increase graduation rates while eliminating achievement gaps; and
- Establish an inclusive college environment where actions and policies support the success of all its community members and where the Cal Poly motto of “Love, Empathy, Respect” is evident in our community interactions.

In the five years since this action plan was first developed, the college made some significant progress on those goals, as will be shown in this report.

In 2022 the college undertook a comprehensive strategic planning process and developed an overarching five-year strategic plan which now includes the original goals as well as embeds the principles of justice, equity, diversity and inclusion throughout.

The 2023-2028 strategic plan, which became official in December 2022, will form the basis for our actions moving forward. The new strategic plan took a year to develop and was based on input from more than 1,600 college stakeholders including students, faculty, staff, campus leaders, alumni and industry partners. A 15-member committee comprised of faculty, staff and students reviewed all the input and crafted the plan.

The full strategic plan can be seen [HERE](#). In this document we highlight the aspects of this plan which are focused on justice, equity, diversity and inclusion.



Mission/Vision/Values and Our Commitment to Justice, Equity, Diversity and Inclusion

Our Mission

To provide an excellent Learn by Doing Engineering and Computer Science Education that empowers all our students to innovate, design and create sustainable solutions to real-world challenges.

Our Vision

The Cal Poly College of Engineering will be nationally recognized for its rapidly diversifying student population and unique, inclusive Learn by Doing educational and applied research experiences.

Our Values

- **Collaboration:** We build a thriving CENG community that encourages collaboration and connection both internally and externally.
- **Growth:** We commit to the growth and development of our students, faculty, staff and college.

- **Diverse, Equitable, Just and Inclusive Community:** We are dedicated to diversifying CENG and ensuring a diverse, equitable, just and inclusive experience for students, faculty and staff.
- **Excellence:** We prepare students with an outstanding applied education to make a positive impact on society.

Our Statement on Diversity

The Cal Poly College of Engineering fosters an environment based in love, empathy and respect where all are supported, energized and empowered. Opportunities to contribute exist for all and a broad range of voices and experiences are necessary as we co-create our future. We are developing an inclusive community where everyone can be their own unique selves.

Progress on 2018-2023 Goals

As described in the section “Developing Our Plan,” the College of Engineering identified three goals for the five-year period from 2018-2023. We are pleased to present our progress on these goals. This progress lays the foundation for our 2023-2028 strategic plan in which the college community will continue to focus on issues of justice, equity, diversity and inclusion.

Goal 1:

Show continual and measurable improvement in the diversity of the CENG community so that our students, faculty and staff reflect the demographics of the state of California, and exceed national averages for engineering representation.

Goal 2:

Increase graduation rates while eliminating achievement gaps.

FIRST-YEAR STUDENT DEMOGRAPHICS GOAL 1 PROGRESS		
	2018	2022
White	54%	38%
Asian	19%	23%
Hispanic/Latino	13%	24%
Multiracial	10%	9%
Black/African American	0.4%	1%
<hr/>		
	2018	2023
Men	74%	68%
Women	26%	32%

COLLEGE OF ENGINEERING GRADUATION RATES — GOAL 2 PROGRESS				
	Fall 2012 cohort	Fall 2014 cohort	Fall 2016 cohort	Fall 2018 cohort
Six-year graduation rate	80%	84.90%	87.10%	
Four-year graduation rate	32%	37.60%	49.10%	50.30%
Transfer student 2-year graduation rate	6.50%	3.80%	4.20%	8.90%
Transfer student 4-year graduation rate	79.70%	89.50%	85.70%	83%

Goal 3:

Establish an inclusive college environment where actions and policies support the success of all its community members and where the Cal Poly motto of “Love, Empathy, Respect” is evident in our community interactions.

- Spring 2023 percentage of students who feel a sense of acceptance and belonging in their major (strongly agree or agree) – 71%

GOAL 3 PROGRESS

- Spring 2023 percentage of faculty and staff who feel that their director/manager/chair demonstrate strong support for justice, equity, diversity and inclusion (strongly agree or agree) – 78%
- Spring 2023 percentage of faculty and staff who feel a sense of belonging in their department or division (strongly agree or agree) – 73%
- Spring 2023 percentage of students who feel a sense of acceptance and belonging in the College of Engineering (strongly agree or agree) – 73%

The Cal Poly College of Engineering fosters an environment based on

LOVE, EMPATHY AND RESPECT

where all are supported, energized and empowered

The 2022-2027 Cal Poly College of Engineering Strategic Plan identifies four strategic priorities, each with two concrete goals. Here we highlight each strategic priority and goal, while showing how each underpins our commitment to justice, equity, diversity and inclusion.



Strategic Priority: Fostering a Welcoming, Supporting, Just, Equitable, Inclusive and Diverse Environment

GOAL — Show continual and measurable improvement in the diversity of the CENG community so that our students, faculty and staff better reflect the demographics of the state of California and exceed national averages for engineering representation.

CONNECTION —The Cal Poly College of Engineering is committed to:

- Expand applicant pools and acceptance rates for students
- Ensure that our faculty and staff recruitment policies are fair and equitable
- Focus on retention of students, faculty and staff through equitable and supportive practices

For example, the college partners with admissions on events such as Poly Cultural Weekend in addition to coordinating communication and information events for admitted students from historically underserved populations.

Actions will include:

- Expand student recruiting activities in high schools across California, with a focus on recruiting activities across a diverse population

- Expand scholarship support for students with financial need
- Expand faculty recruiting pools to ensure we recruit equitable across all demographics by partnering with NSBE, SWE, SHPE and PhD-granting schools with diverse graduate populations
- Develop faculty and staff support structures to improve retention across all demographics

Metrics will include:

- Student population demographics, with a focus on our goal to have our student body reflect the diversity of the population in California
- Student application rates and yield rates, from students historically underserved in the fields of engineering and computer science
- Faculty and staff application pool demographics relative to the nationwide/statewide demographics of qualified applicants
- Actions taken to expand and enhance our networks for recruiting faculty/staff
- Actions taken to monitor and improve faculty/staff experience and retention

GOAL — Develop an inclusive college culture where actions and policies support the equitable success of the entire CENG community and where everyone is valued for being their own unique self.

CONNECTION —The Cal Poly College of Engineering will focus on culture change to:

- Ensure a sense of inclusion and belongingness is cultivated across all demographics
- Integrate this change into our systems and structures by revising college policies using an equity lens

For example, this includes college wide efforts on inclusive hiring practices, intentional celebration of the diverse ways to achieve success in engineering and several grant-funded programs focused on institutional change, social justice and equity.

Actions will include:

- Review and revise college policies to ensure equitable success of the entire college community
- Integrate evidence-based inclusive classroom strategies
- Implement activities focused on implementing an inclusive college culture

Metrics will include:

- Steady increases in percentage of students, faculty and staff who report feeling a sense of belongingness in CENG through culture assessment, with attention paid to the experiences of faculty and staff from marginalized groups
- Number of College events that promote engagement and celebrate/support the culture of those traditionally underrepresented in engineering and computer science
- Number of College policies reviewed and revised with an emphasis on equity and transparency



Strategic Priority: Ensuring Equitable Student Success

GOAL — Identify systemic challenges to graduation rates and implement strategies to mitigate with a focus on achieving equitable outcomes for all students.

CONNECTION — The Cal Poly College of Engineering is committed to:

- Examining our pedagogical practices and where appropriate changing pedagogy to ensure a path for equitable student success
- Implementing inclusive and equitable classroom policies and developing support structures where needed so that all students can succeed

For example, the college actively participated in the 2022 Cal Poly Teach-In for Social Justice, sponsoring a track or workshops in which college faculty presented their strategies on inclusive pedagogy. The college also partnered with the Bailey College of Science and Mathematics to promote summer.

Actions will include:

- Identify and remove structural barriers to graduation
- Build faculty capacity in equitable and inclusive pedagogy through regular workshops and training opportunities
- Develop and implement student support structures where needed to ensure equitable success

Metrics will include:

- Graduation rates and academic success measures across all demographics, with special attention paid to students from historically underserved populations in engineering
- Number of faculty attending trainings related to inclusive teaching practices





GOAL — Provide clear and realistic pathways in each degree program for transfer students to graduate in two years.

CONNECTION —Transfer students are an important part of the College of Engineering community, but historically, serious structural barriers to graduation have inhibited their success. Our transfer student community has a higher percentage of first-generation and Pell-eligible students, primarily from populations historically underrepresented in engineering and computer science and **we are committed to supporting this population.**

For example, the college has implemented a peer-to-peer mentoring program for transfer students, has piloted summer bridge program in certain majors and is focusing on the transfer student experience as the new semester degree paths are developed.

Actions will include:

- Development of clear and equitable transfer students' pathways for all degree programs
- Expansion of community college partnerships
- Easing of course transfer process using articulation agreements and course IDs

Metrics will include:

- Graduation rates across all demographics, with special attention paid to students from historically underserved populations in engineering

Strategic Priority: Excelling in Teaching and Scholarship

GOAL — Expand Learn by Doing activities and infrastructure with an emphasis on cross-disciplinary opportunities which support curricular and cocurricular threads on societal challenges, data literacy, systems thinking, ethics, justice, equity, diversity and inclusion.

CONNECTION — The College of Engineering faculty have committed to including a focus on:

- The societal impact and responsibility of engineers and computer scientists
- Working in a just, equitable, inclusive and diverse society into required classes in each major

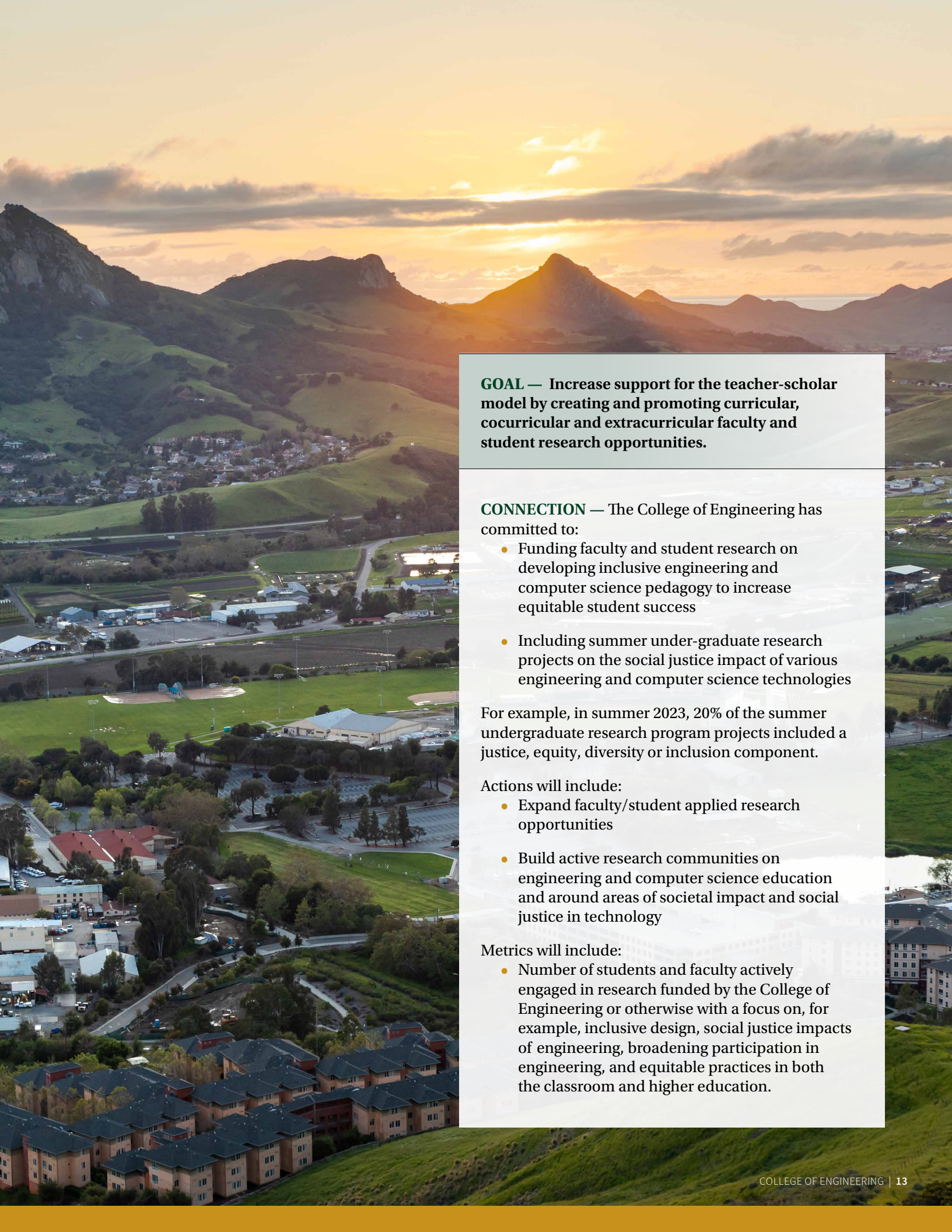
Actions will include:

- Develop vibrant faculty communities of practice focused on each curricular thread
- Integrate curricular thread topics into required course curricula
- Expand interdisciplinary collaborations
- Expand Learn by Doing student opportunities related to the curricular threads

Metrics will include:

- Percentage of major courses offered annually that include curricular threads related to justice, equity, diversity and/or inclusion
- Percentage of students taking required courses that include curricular threads related to justice, equity, diversity and/or inclusion
- The robustness (measured in number of participants, number of events, and external sponsorship) for cross-disciplinary clubs and cocurricular Learn by Doing activities on that focus on supporting justice, equity, diversity and inclusion
- Demographic breakdown of participation in all College of Engineering cocurricular activities with a special focus on students from historically underserved populations in engineering





GOAL — Increase support for the teacher-scholar model by creating and promoting curricular, cocurricular and extracurricular faculty and student research opportunities.

CONNECTION — The College of Engineering has committed to:

- Funding faculty and student research on developing inclusive engineering and computer science pedagogy to increase equitable student success
- Including summer under-graduate research projects on the social justice impact of various engineering and computer science technologies

For example, in summer 2023, 20% of the summer undergraduate research program projects included a justice, equity, diversity or inclusion component.

Actions will include:

- Expand faculty/student applied research opportunities
- Build active research communities on engineering and computer science education and around areas of societal impact and social justice in technology

Metrics will include:

- Number of students and faculty actively engaged in research funded by the College of Engineering or otherwise with a focus on, for example, inclusive design, social justice impacts of engineering, broadening participation in engineering, and equitable practices in both the classroom and higher education.

Strategic Priority: Empowering Personal and Professional Development

GOAL — Expand student professional development and networking opportunities.

CONNECTION — The Cal Poly College of Engineering will focus on:

- Expanding student professional development so that students are equitably prepared for post-graduation success
- Ensuring all students have access to informal networks to create professional opportunities

For example, the college supports the Multicultural Engineering Program and student clubs such as NSBE, SHPE, SWE, WISH, oSTEM and Color Coded in their offerings of professional development opportunities to students. Additionally, the college corporate partners offer professional development events throughout the year.

Actions will include:

- Integrate professional guidance (career paths, resume writing, interviewing skills) into required courses
- Promote and expand networking opportunities for students with alumni
- Promote and expand networking opportunities for students with industry partners
- Promote and expand international opportunities for students

Metrics will include:

- Number of courses integrating professional guidance
- Number of student networking opportunities with special attention to events that intentionally include or are focused for students from historically underserved populations in engineering
- The robustness and vitality of student affinity clubs such as NSBE, SHPE, SWE, oSTEM, WISH and Color Coded





GOAL — Increase funded opportunities for faculty and staff to participate in professional development.

CONNECTION — The Cal Poly College of Engineering will focus on making sure that faculty and staff have:

- Equitable access to professional development activities
- Access to workshops and training opportunities focused on implementing strategies to ensure equitable student success

For example, communication about opportunities is shared widely with all faculty and staff and the college has developed a unified resource for funding opportunities to actively battle ‘hidden menus’ that benefit a limited number of faculty.

Actions will include:

- Establish professional development plans for all staff
- Expand the new faculty development program
- Increase transparency and equity in faculty professional development funding
- Regularly offer workshops on inclusive and equitable student success

Metrics will include:

- Number of faculty and staff who participate in funded professional development training, workshops, or conferences, with special attention to faculty and staff from backgrounds traditionally underrepresented in engineering and computer science



CAL POLY
College of Engineering



College of Engineering Diversity Action Plan

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