



Cal Poly Pomona | College of Engineering



# College of Engineering Strategic Plan 2025

Learn by Doing: Making Imagination Real



***“Greatness through excellence,  
one student at a time.”***

Joseph J. Rencis  
*Dean, College of Engineering*

*College of Engineering*  
**Strategic Plan**



# Where We're Going

Dear Alumni, Friends and Supporters,

Cal Poly Pomona College of Engineering graduates are sought after and well-respected by business, industry and graduate schools. This is due to our Learn by Doing approach to education that graduates day-one professionals. On the first day on the job, our graduates have two feet on the ground and two hands on the problem. They add value to the company day-one. The college must continue to graduate day-one professionals. Further, as described by Dr. Soraya Coley, president of Cal Poly Pomona, we must graduate individuals for The Future of Work and Human Engagement. As the College of Engineering moves forward, we must increase the college's relevance in this changing world by preparing high-impact graduates that not only get the jobs of today and tomorrow, but also create and lead the jobs of the future.

The college's strategic plan will be a guide for the direction, priorities and investments over the next seven years. The guiding principles we use to select strategic projects must answer yes to the following questions: "Will it have a positive impact on students?" and "Will it enhance the capabilities and reputation of the college and institution?" The future success of the college comes down to how we handle the "three Ps"—People, Programs and Places. The primary measure of our success is the success of our students. My mantra is "Greatness through excellence, one student at a time."

Our vision is "The Cal Poly Pomona College of Engineering's Learn by Doing education prepares engineers to transform imagination into reality." The quote from Albert Einstein best describes our vision: "Logic will get you from A to B. Imagination will take you everywhere." If we look at the human brain, the left-side is logic and the right-side is imagination. Our goal in the College of Engineering is to not graduate left-side engineers, but a 'Whole-Brain Engineer.'

The journey before the College of Engineering in the next few years is electric with possibilities, and that journey requires the support of many to make it happen. Join us in helping the college be the national leader and role model in engineering and engineering technology education! Let's go Broncos.

With warm regards,

*Joseph J. Rencis*

Joseph J. Rencis, Ph.D., P.E.  
Dean, College of Engineering

***"Do not go where the path may lead;  
go instead where there is no path and leave a trail."***

- Ralph Waldo Emerson, US Essayist & Poet

# Framework for the Strategic Plan

## Inclusive and Collaborative Process

The Cal Poly Pomona College of Engineering (CoE) Strategic Plan was developed through an inclusive and collaborative process involving the Cal Poly Pomona (CPP) leadership and college deans, CoE department chairs, CoE faculty and staff, department industry advisory groups, area community colleges, and most importantly, CoE students.

In December 2017, the CoE launched the Strategic Planning initiative and formed a Strategic Planning Committee with all department chairs.

In early spring 2018, the committee expanded to include faculty and staff volunteers. The committee gathered and analyzed feedback from:

- Organizational Culture Inventory® (OCI®) survey
- Organizational Effectiveness Inventory (OEI®) survey
- 10 focus groups
- Over a dozen one-on-one and group interviews with key stakeholders

In fall 2018, the committee and faculty and staff volunteers started work on the implementation of short-term strategic projects using the strategy discipline of Strategic Doing™. Volunteer teams learned to link and leverage resources in networks and practice Learn by Doing methods to move quickly into action and adjusting along the way, but always with a focus on the vision and desired end goal.





***College of Engineering faculty determining and analyzing the key elements of the strategic plan in late April 2018.***

### **Positive Impacts to Students and the Institution**

The emphasis of the Strategic Planning Committee is to create a plan that has a positive impact on students AND enhances the capabilities and reputation of the institution and CoE. Our overarching goal is to enhance the Learn by Doing education philosophy that has historically graduated industry-ready professionals. CoE graduates will become leaders in solving the complex problems of society.

### **Describes the Path Forward**

The primary functions of this strategic plan are to describe a path for CoE to achieve its mission, to articulate core values for decision-making, to set clear specific goals and strategic projects, and to identify and obtain the resources and capacities needed to realize those goals.

### **Aligns the College with the University**

The vision, mission, values and projects described in this plan will guide the CoE and ensure alignment with university strategic initiatives and goals to further the role of the university's polytechnic identity and the CoE impact.



# Our Vision

The Cal Poly Pomona College of Engineering's Learn by Doing education prepares engineers to transform imagination into reality.

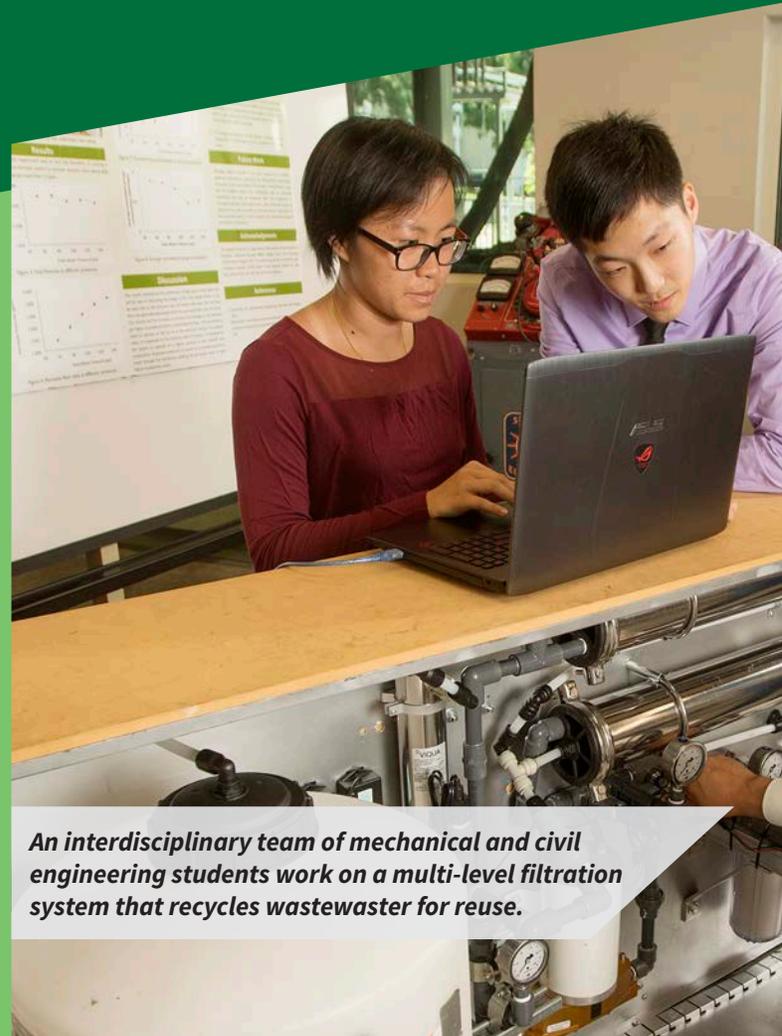


# Our Mission

Prepare students for industry and advanced studies by implementing an inclusive polytechnic philosophy through collaborative teamwork, innovation, entrepreneurship and professional integrity.

# Core Values

Core values are the basis upon which we strategize, make decisions, and interact with each other and our stakeholders. The following values represent what is important to CoE and how we will support our vision and shape our culture. These principles guide our internal conduct and external relationships to ensure we stay true to our mission and provide a critical foundation for developing the goals and strategies that follow in this strategic plan.



***An interdisciplinary team of mechanical and civil engineering students work on a multi-level filtration system that recycles wastewater for reuse.***



## **People-Centered**

We invest in people and celebrate success.

## **Collaborative**

We create an environment of collegiality, ownership, and engagement.

## **Forward-Thinking**

We strive to be proactive, creative, and innovative.

## **Transparent**

We are committed to maintaining an environment of open, honest, and inclusive communication.

## **Bold**

We value grit, risk-taking, and learning from challenges.

# Framework for the Future

## CoE Focus Areas

The focus areas and their respective goals address existing and developing issues, challenges and opportunities that the CoE and its stakeholders have identified as most important to the current and future vitality of the college. These focus areas result from a thorough analysis of stakeholder input through focus groups, interviews, and surveys about opportunities, challenges, aspirations, dreams, reputation, needs, culture, and climate. CoE will launch a series of projects in fall 2018 that will advance our goals.

For each focus area there are multiple goals. For each goal there are specific projects, which vary in scope and duration and are identified as follows:

- Short-term Projects – Completed quickly in approximately 1 to 2 semesters.
- Transformational Projects – Completed in approximately 1 to 3 years. These projects require securing new resources.
- Legacy Projects – Completed in approximately 3 to 5 years. These projects require securing significant new resources.

## Focus Areas

- 1 STUDENT SUCCESS**
- 2 EXPERIENTIAL LEARNING**
- 3 FACULTY AND STAFF EXCELLENCE**
- 4 CULTURE**
- 5 RESOURCE DEVELOPMENT AND INVESTMENT**
- 6 STRATEGIC PARTNERSHIPS AND INDUSTRY ENGAGEMENT**



*Electrical engineering students work on their smart grid model to find ways to dramatically improve the efficiency and quality of electric power generation and distribution systems.*

**An electromechanical engineering technology student presents his effects pedal switcher at the college's annual Project Symposium.**



## Focus Area #1: STUDENT SUCCESS

**Goal #1** Provide a foundation that is conducive to the development of technically competent and entrepreneurial engineering graduates.

**Goal #2** Implement a holistic advising process that fosters student success.

**Goal #3** Create an environment that supports learning, growth, well-being, and an appreciation of diversity.

## Focus Area #2: EXPERIENTIAL LEARNING

**Goal #4** Provide hands-on learning through industry-sponsored projects, clubs, competitions, and service learning.

**Goal #5** Connect students' coursework to hands-on projects in industry and the community.

## Focus Area #3: FACULTY AND STAFF EXCELLENCE

**Goal #6** Recruit tenure-track and professional professors of practice from a diverse pool to ensure quality faculty, course sections and a curricular balance between theory and practice.

**Goal #7** Provide resources to mentor new faculty and staff and support the professional development of all faculty and staff.

## Focus Area #4: CULTURE

**Goal #8** Foster a collaborative environment that encourages engagement, discovery, and celebrates success.

**Goal #9** Provide professional leadership and development opportunities for growth to promote a culture of collegiality, professionalism, and diversity.

**Goal #10** Provide a supportive environment for all students, faculty, and staff that is grounded in open, inclusive, and respectful communication.

## Focus Area #5: RESOURCE DEVELOPMENT AND INVESTMENT

**Goal #11** Secure funding from industry, government funders, and private donors to build physical and human infrastructure.

## Focus Area #6: STRATEGIC PARTNERSHIPS AND INDUSTRY ENGAGEMENT

**Goal #12** Create mutually beneficial partnerships with other colleges and universities.

**Goal #13** Develop strong commitments from industry to partner on internships, projects, research, and advocacy.



***Civil engineering students take measurements during their advanced surveying course in the Engineering Meadow.***

# CoE Strategic Plan Focus Areas align with the CPP Strategic Initiatives

Each focus area is linked either to a **CPP Strategic Initiative** or to the improvement of CoE's culture.

## CoE Strategic Plan Focus Areas

## CPP Strategic Initiatives

CoE Focus Area #5: Resource Development and Investment

DELIVER QUALITY PROGRAMS THAT PROMOTE INTEGRATIVE LEARNING, DISCOVERY, AND CREATIVITY

CoE Focus Area #1: Student Success

ENHANCE STUDENT LEARNING, DEVELOPMENT, AND SUCCESS

CoE Focus Area #2: Experiential Learning

CoE Focus Area #6: Strategic Partnerships and Industry Engagement

PREPARE OUR STUDENTS FOR THE FUTURE OF WORK AND CIVIC ENGAGEMENT

CoE Focus Area #6: Strategic Partnerships and Industry Engagement

STRENGTHEN OUR ECONOMIC VITALITY AND IMPACT

CoE Focus Area #3: Faculty and Staff Excellence

ADVANCE ORGANIZATIONAL DEVELOPMENT AND FACULTY & STAFF EXCELLENCE

CoE Focus Area #4: Culture

IMPROVE THE CULTURE OF THE COLLEGE OF ENGINEERING



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