CUYAMACA COLLEGE

Annual Update Report

Academic - Engineering (ENGR) - (MS&E)

Increase student success in sophomore-level engineering courses through increased support for ENGR 100 and all other lab classes. (Goal 1)

Program Goal: Increase student success in sophomore-level engineering courses through increased support for ENGR 100 and all other lab classes.
Goal Status: Active

Mapping
2022 - 2028 Strategic Plan: *(X)*

- **Eliminate Equity Gaps in Course Success:** Increase student success in sophomore-level engineering courses through increased support for ENGR 100 and all other lab classes. (**X**)
- **Increase Persistence and Eliminate Equity Gaps:** Increase student success in sophomore-level engineering courses through increased support for ENGR 100 and all other lab classes. (**X**)
- **Increase Completion and Eliminate Equity Gaps:** Increase student success in sophomore-level engineering courses through increased support for ENGR 100 and all other lab classes. (**X**)

Summary of Progress or Results
Summary Date: 11/07/2025 **Summary of Progress or Results:** With our recent budget augmentation and fulfillment of equipment and technology requests, we can begin monitoring improvements in sophomore-level courses. However, we are still missing a critical support element—a dedicated lab technician—to properly support lab courses. **Reporting Period:** 2025 - 2026 **Status:** In Progress - will carry forward into next year **What resources, if any, are needed to achieve this goal? (Select all that apply):** New classified position **Action steps for this academic year.:** We will continue to request funding for our first ENGR lab technician to provide essential support for the six lab-based courses in our program.

Create Makerspace to support labs, student projects, engineering club, and national competition teams. (Goal 2)

Program Goal: Create Makerspace to support labs, student projects, engineering club, and national competition teams
Goal Status: Active

Mapping
2022 - 2028 Strategic Plan: *(X)*

- **Increase Equitable Access:** Create Makerspace to support labs, student projects, engineering club, and national competition teams (**X**)
- **Eliminate Equity Gaps in Course Success:** Create Makerspace to support labs, student projects, engineering club, and national competition teams (**X**)
- **Increase Persistence and Eliminate Equity Gaps:** Create Makerspace to support labs, student projects, engineering club, and national competition

teams (**X**)

- **Increase Completion and Eliminate Equity Gaps:** Create Makerspace to support labs, student projects, engineering club, and national competition teams (**X**)

Summary of Progress or Results
Summary Date: 11/07/2025 **Summary of Progress or Results:** The 3D printers in the Makerspace continue to see increased use. In September and October 2025, 311 prints were completed—nearly double the 159 prints during the same period in 2024. This growth reflects the expanding integration of 3D printing into our classes. However, we urgently need lab technician support to manage this increased demand, expand access to other Makerspace equipment, and ensure proper enforcement of safety protocols and regulations. **Reporting Period:** 2025 - 2026 **Status:** In Progress - will carry forward into next year **What resources, if any, are needed to achieve this goal? (Select all that apply):** New classified position **Action steps for this academic year.:** We will continue to request funding for our first ENGR lab technician to provide essential support for the six lab-based courses in our program and our Makerspace.

Partner with CE and the Career Center to get students better connected to their goals. (Goal 3)

Program Goal: Partner with CE and the Career Center to get students better connected to their goals
Goal Status: Active

Mapping
2022 - 2028 Strategic Plan: *(X)*

- **Increase Equitable Access:** Partner with CE and the Career Center to get students better connected to their goals (**X**)
- **Increase Persistence and Eliminate Equity Gaps:** Partner with CE and the Career Center to get students better connected to their goals (**X**)
- **Increase Completion and Eliminate Equity Gaps:** Partner with CE and the Career Center to get students better connected to their goals (**X**)

Summary of Progress or Results
Summary Date: 11/07/2025 **Summary of Progress or Results:** Progress on this goal has stalled. With the addition of our new full-time, tenure-track professor, we anticipate being able to focus on this goal more intentionally in the future. **Reporting Period:** 2025 - 2026 **Status:** In Progress - will carry forward into next year

Program Overview and Update

Lead Author
Keenan Murray

Please briefly share the ways in which you collaborated with colleagues within and outside of your department to gather input to inform your program review.
Tammi Marshall
Miriam Simpson
Allie Neri

Dean/Manager(s)
Tammi Marshall

Please briefly share the ways in which you collaborated with your Dean on your program review to discuss your vision, goals, and resource needs/requests.
The Dean and I have monthly one-on-one meetings. We review all of the program needs, including program review.

Please summarize the changes, additions, and achievements that have occurred in your program since the last program review.
Our program continues to grow in both enrollment and course offerings. We now offer 10 different ENGR courses, most of which run every semester. Six of these courses include a lab component that urgently needs dedicated support. To address this, we will keep submitting requests for our first ENGR lab technician to meet these lab needs and support our Makerspace.
In the meantime, we've incorporated federal work-study students to assist in the Makerspace, providing some relief. However, our labs remain completely unsupported—professors often work with materials and equipment "on the fly." Class time is frequently used to acquire and prepare lab activities, which reduces valuable instructional time for students. Equipment maintenance is reactive rather than proactive, with repairs only occurring after breakdowns, and uncalibrated equipment is often used. Additionally, there is no oversight to ensure compliance with safety regulations, proper equipment maintenance, or facility requirements.
As enrollment and course offerings continue to increase, the need for dedicated lab support is critical.
We are excited to announce that we will be hiring a new full-time, tenure-track professor this coming spring to help sustain our growth. We are also collaborating with Valhalla High School to establish an engineering pathway to Cuyamaca College.

Assessment and Student Achievement

After looking at the SLO information for the past year in Nuventive Improve, are you are on track for the 4-year assessment cycle?
No

If you answered no above, please describe the department's plan to ensure SLOs are assessed every 4 years.
Some ENGR courses have been regularly assessed, while a few have fallen behind. As a department, we've set the expectation that every instructor—except those teaching for the first time—will assess SLOs this semester. New instructors will complete their assessments next semester, as we recognize that preparing new courses is already demanding.
To streamline the process, we've encouraged faculty to assess SLOs in Canvas for easier access and improved consistency.

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Which courses have not been assessed in the last 4 years?
ENGR 120
ENGR 210
ENGR 230 - NEW COURSE
ENGR 260
ENGR 261 - NEW COURSE

If you did not assess in the last year, please share why, including whether your program is experiencing barriers to assessment or data submission, and/or if your program would benefit from outcomes and assessment support.
SLO assessments are most often missed in adjunct-taught classes. Our perception is that some adjunct faculty view this as an additional, burdensome task. As a department, we are actively working to change this mindset by emphasizing the importance of assessment and providing support to make the process more manageable.

Please share any outcomes assessment projects your program has worked on in the last year, including SLOs on Canvas, PLOs by ACP, Equitable Assessment Strategies (innovative collective/common assessments, project-based, work-based learning, student-centered, etc.), or other.
We continue to encourage our instructors to use Canvas for SLO assessments, as it provides easier access and ensures consistency across courses.

Student Achievement

Please discuss any equity gaps in access or success and share what the program will do to address them.
The ENGR program's largest **access equity gap** is in gender. Campus-wide, more than half of students identify as women; however, in our ENGR program, only about 20% identify as women. This reflects a systemic issue within the field of engineering that must be addressed at a community level. Our hope is that by partnering with local high schools, we can encourage more women to pursue engineering.
The ENGR program's largest **success equity gap** is among Hispanic/Latino students. While this group represents the highest enrollment in engineering, it also experiences the most significant success gap. The majority of this gap occurs in ENGR 100, our introductory course. Therefore, we will continue prioritizing support for ENGR 100 to close this gap. Our data shows improvement over the past few years, and I will work closely with our new full-time engineering professor to develop additional strategies to strengthen this effort.

Please describe any enrollment changes (increases/decreases) over the past year and the context for these changes.
We currently have the highest enrollment in the past five years, and the growth trend suggests this momentum will continue. Our program has established itself as a central hub in San Diego for various engineering fields that feed into SDSU. As we continue to expand course offerings, increase articulation agreements, and add more sections, we anticipate even greater growth in the coming years.

Distance Education Course Success (If Applicable)

If your department offers distance education classes, how do you ensure Regular and Substantive Interaction (RSI) is being implemented?
We are making progress in strengthening our RSI (Regular and Substantive Interaction) practices. Our strongest areas are in providing information and feedback, while discussions remain our weakest point. Overall, there is room for improvement, and additional paid training opportunities—especially for adjunct faculty—would be greatly beneficial and welcomed.

Program Goals

Program Goals Status
I have updated the progress on my previous goals.

Program Goals Mapping
Mapping for all active Program Goals complete.

Submission

Program Review response is complete and ready for review.
Yes - Response complete and ready for review

Dean Approval and Feedback

I have reviewed the program review with the author and provided feedback.
Yes - Review and feedback complete

Feedback
Overall, the Annual Update is excellent and the Engineering Department is growing and thriving. With the addition of a new full-time tenure-track faculty in fall 2026, I am hopeful even more momentum will be established.
- I concur that an Engineer Lab Technician is crucial for the continued success and growth of the program.
- I love that the department is trying to change how part-time faculty think of SLO assessment. It is important to focus on helping faculty understand that assessing SLOs is no different than regular assessment. Focusing on using Canvas to assess these makes it even easier and saves time.
- I applaud the effort to close the access and success equity gaps.
- RSI is a required component in all courses, online and in-person. This is an identified needed improvement area and I am hoping to see some more PD completed by faculty in this area over the next year as we focus on this.