2025 INSTRUCTIONAL ANNUAL PROGRAM PLANNING WORKSHEET

CURRENT YEAR: 2025 **PROGRAM(S): ENGINEERING**
CLUSTER: 1 - STEM **AREA OF STUDY: STEM**
LAST YEAR CPPR COMPLETED: Click here to enter text. NEXT SCHEDULED CPPR: Click here to enter text.CURRENT DATE: Click here to enter a date.

The Annual Program Planning Worksheet (APPW) is the process for:

- reviewing, analyzing and assessing programs on an annual basis
- documenting relevant program changes, trends, and plans for the upcoming year
- identifying program needs, if any, that will become part of the program's **Resource Plan**, which can be downloaded from the **IPPR Program Review Documents Folder**. Please review the **Resource Allocation Rubric** when preparing the resource plan.
- highlighting specific program accomplishments and updates since last year's APPW
- tracking progress on a Program Sustainability Plan if established previously

Note: Degrees and/or certificates for the ***same*** program ***may be consolidated*** into one APPW.

This APPW encompasses the following programs of study (degrees and/or certificates):

Engineering AS

GENERAL PROGRAM UPDATE

Describe changes and improvements to the program, such as changes to the mission, purpose, or direction. In particular, indicate any changes that have been made to address equity gaps.Click here to enter text.

In fall, 20224, the Engineering Program and program faculty were moved into the Physical Sciences Division (now named, Earth, Engineering, and Physical Sciences). In addition, a new full-time, tenure-track faculty member was added to replace a faculty member who had retired several years ago. These changes have and will result in many changes to the program including:

- *Developing a sustainable course rotation*
- *Communicating the course rotation to students and counseling*
- *Reviewing all curriculum including*
    - *Course cap approvals/modifications*
    - *Topics and Scope*
    - *Student Learning Outcomes*
- *Collaborating with four-year institutions to ensure articulation and student transfer readiness.*

PROGRAM SUSTAINABILITY PLAN UPDATE

Was a Program Sustainability Plan established in your program's most recent Comprehensive Program Plan and Review?

Yes ☐ If yes, please complete the Program Sustainability Plan Progress Report below.
No ☒ If no, you do not need to complete a Progress Report.

If you selected yes, please complete the Program Sustainability Plan Progress Report below after you complete the Data Analysis section. That data collection and analysis will help you to update, if necessary, your Program Sustainability Plan.

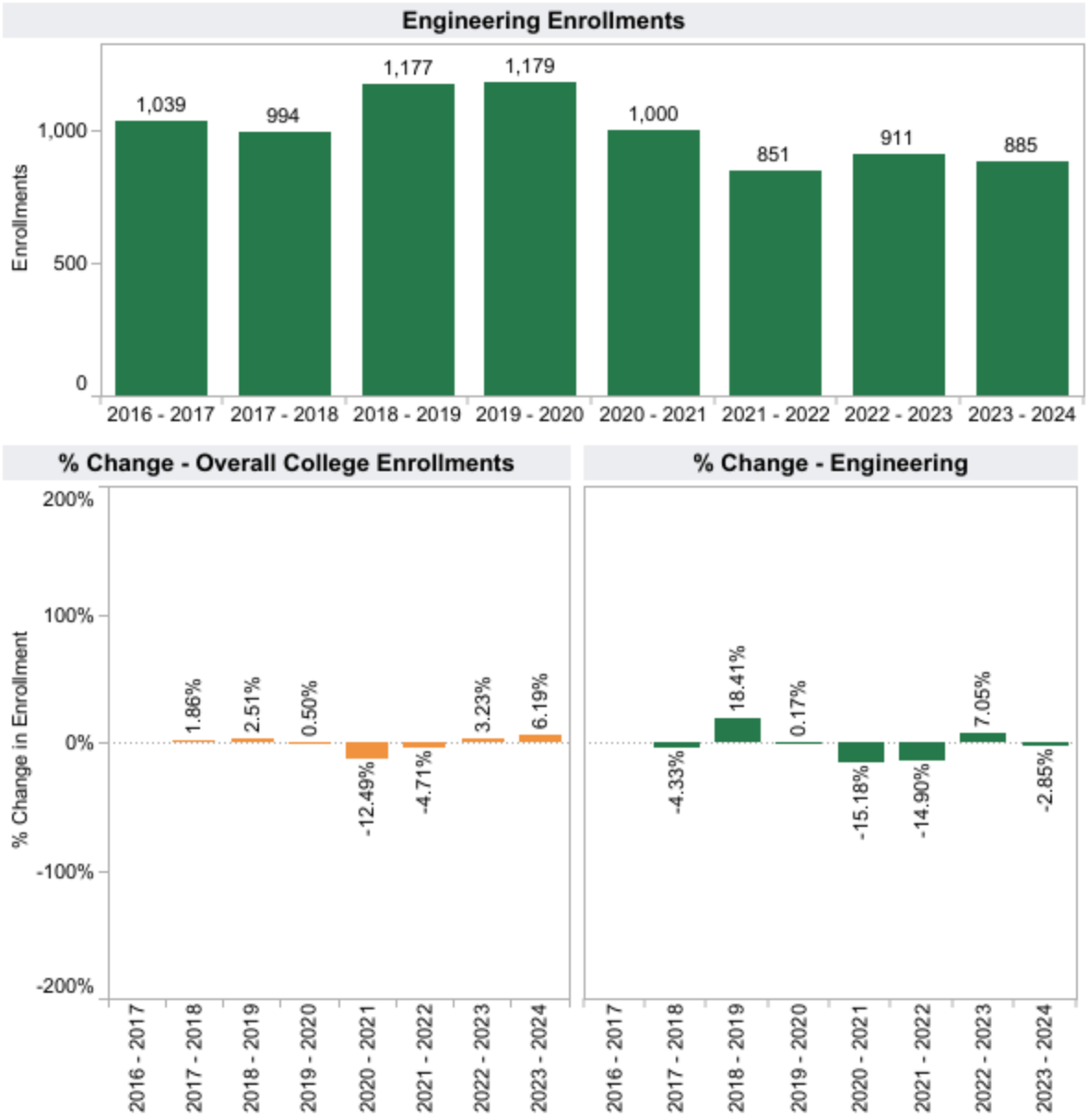
DATA ANALYSIS AND PROGRAM-SPECIFIC MEASUREMENTS

Your responses to the prompts for the data elements below should be for the entire program. If this APPW is for multiple degrees and/or certificates, then you MAY want to comment on each degree and/or certificate or discuss them holistically for the entire program being sure to highlight relevant trends for particular degrees and/or certificates if necessary. Responses in this document need only reference the most recent year's available data.

A. **General Enrollment (Insert Aggregated Data Chart)**

SLOCCCD Program Review Data - Enrollment

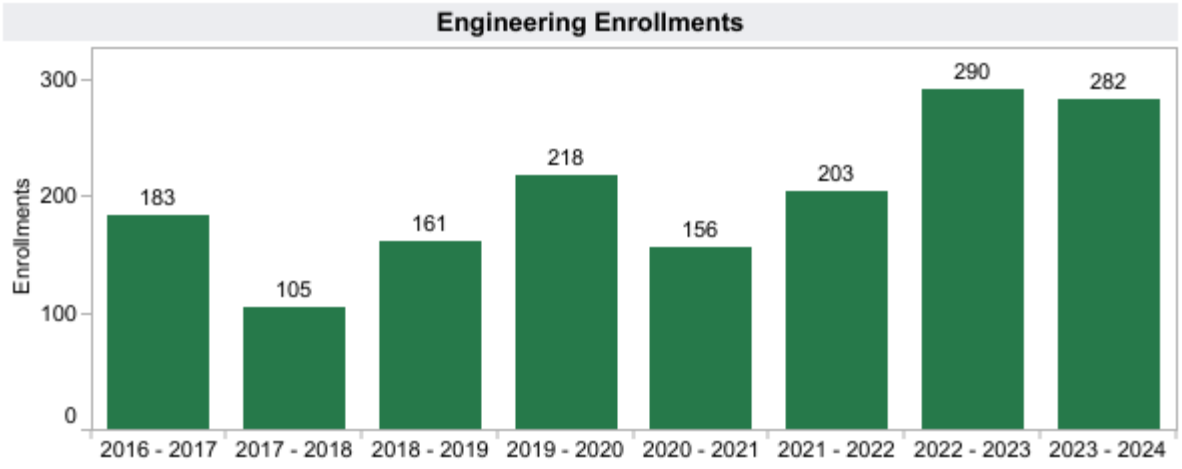
Department: Engineering
Course: All
Dual Enrollment: All
Prison: All
Region: All
TERM All

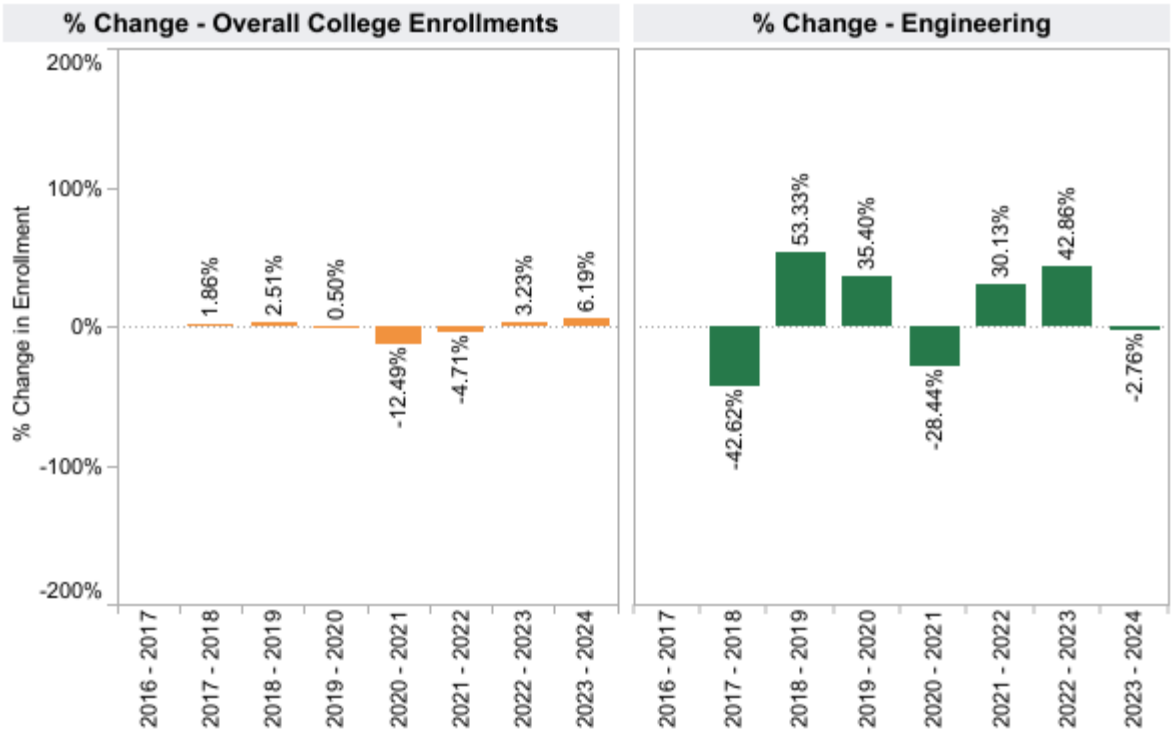


Overall, Engineering enrollments appear to have stabilized after the COVID-19 pandemic. Additionally, staffing has stabilized which allows for more predictable course scheduling.

SLOCCCD Program Review Data - Enrollment

Department: Engineering
Course: All
Dual Enrollment: Dual Enrollment
Prison: All
Region: All
TERM All

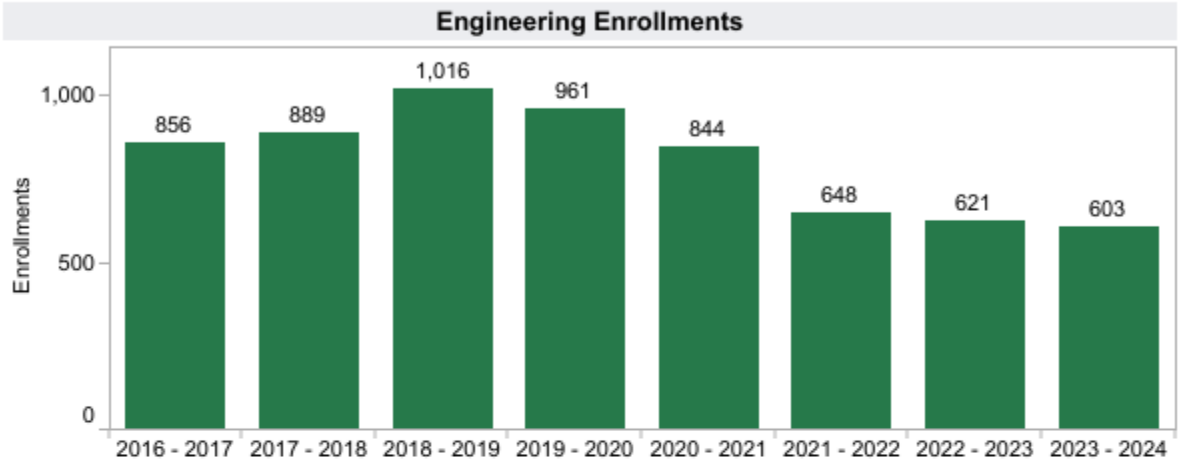


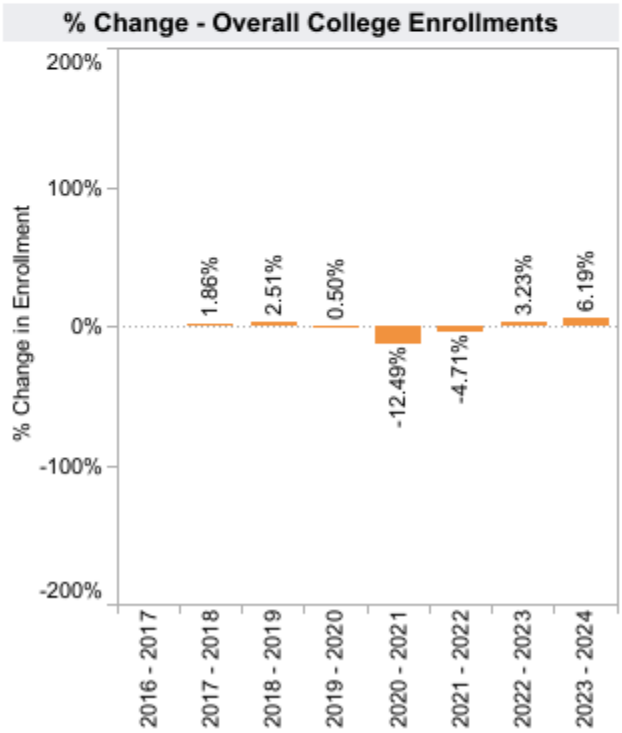


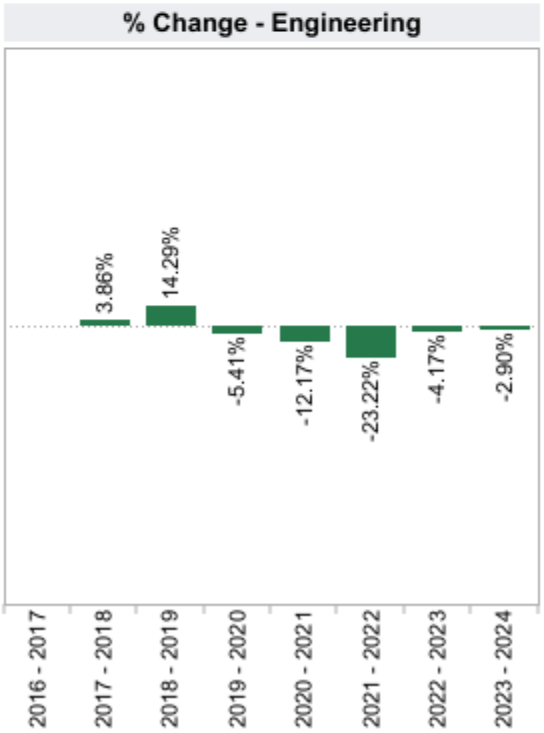
Dual enrollment enrollments increased since the pandemic and appear to have stabilized this year.

SLOCCCD Program Review Data - Enrollment

Department: Engineering
Course: All
Dual Enrollment: Not Dual Enrollment
Prison: All
Region: All
TERM All





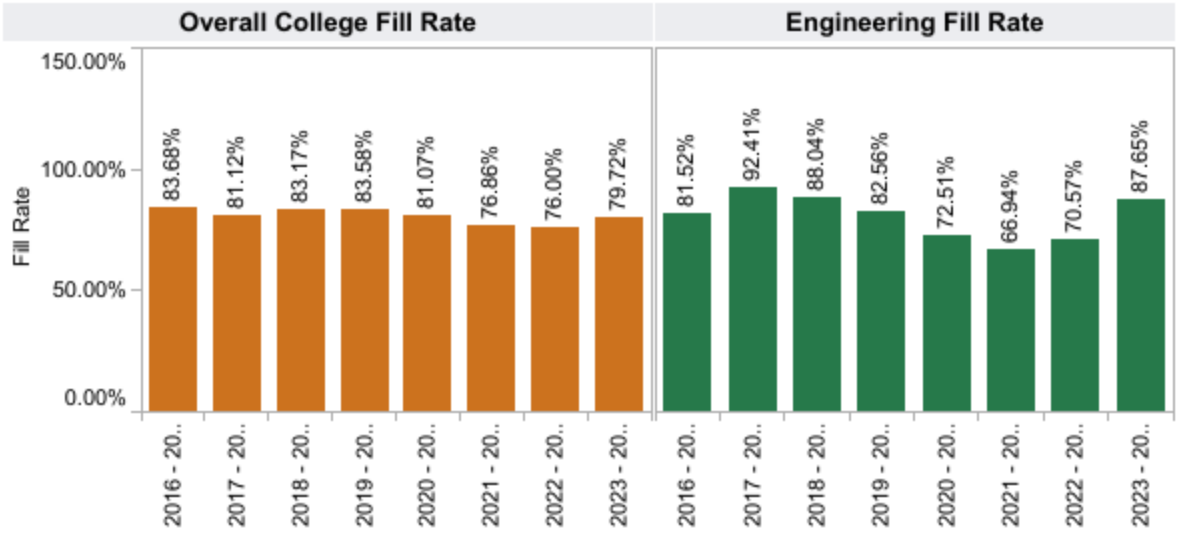


Cuesta-native student enrollment has also stabilized, but is far below its maximum in 2018-19. Some of the decline may be due to the fact that course start and end dates no longer correspond to Cal Poly's dates. This may have affected the number of Cal Poly students enrolling in Cuesta courses.

B. **General Student Demand (Fill Rate) (Insert Aggregated Data Chart)**

SLOCCCD Program Review Data - Student Demand (Fill Rate)

Department:	Course:	Dual Enrollment:	Prison
Engineering	All	Not Dual Enrollment	All

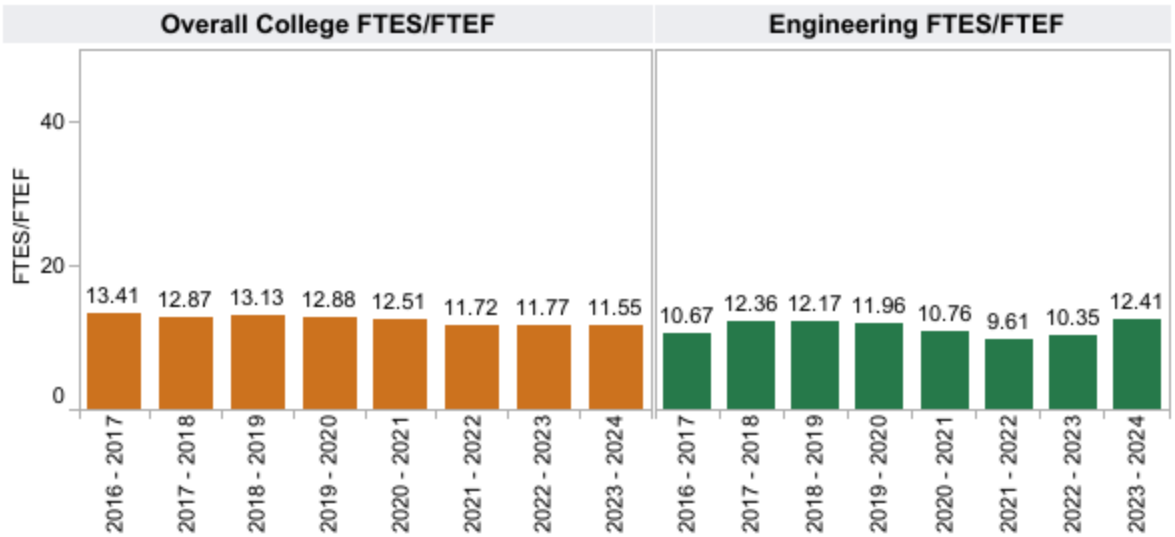


Fill rates for ENGR courses have increased year-over-year. It is anticipated that the fill rate will continue to increase and stabilize as course communications are communicated to students and counselors. In the short-term, there may be some instability as prerequisites for ENGR courses begin to be enforced.

C. **General Efficiency (FTES/FTEF) (Insert Aggregated Data Chart)**

SLOCCCD Program Review Data - Efficiency (FTES/FTEF)

Department:	Course:	Dual Enrollment:	Prison:
Engineering	All	Not Dual Enrollment	All



Click here to enter text.

Efficiency is much lower than the Earth, Engineering, and Physical Sciences programs, but still remains above the college average. Program faculty are looking at ways to increase efficiency including combining lab sections into one lecture section and offering consistent course rotations. In the short-term, there may be some instability as prerequisites for ENGR courses begin to be enforced and curriculum for some courses is changed to align with C-ID descriptors. This may include reducing lecture units and increasing lab units on some courses.

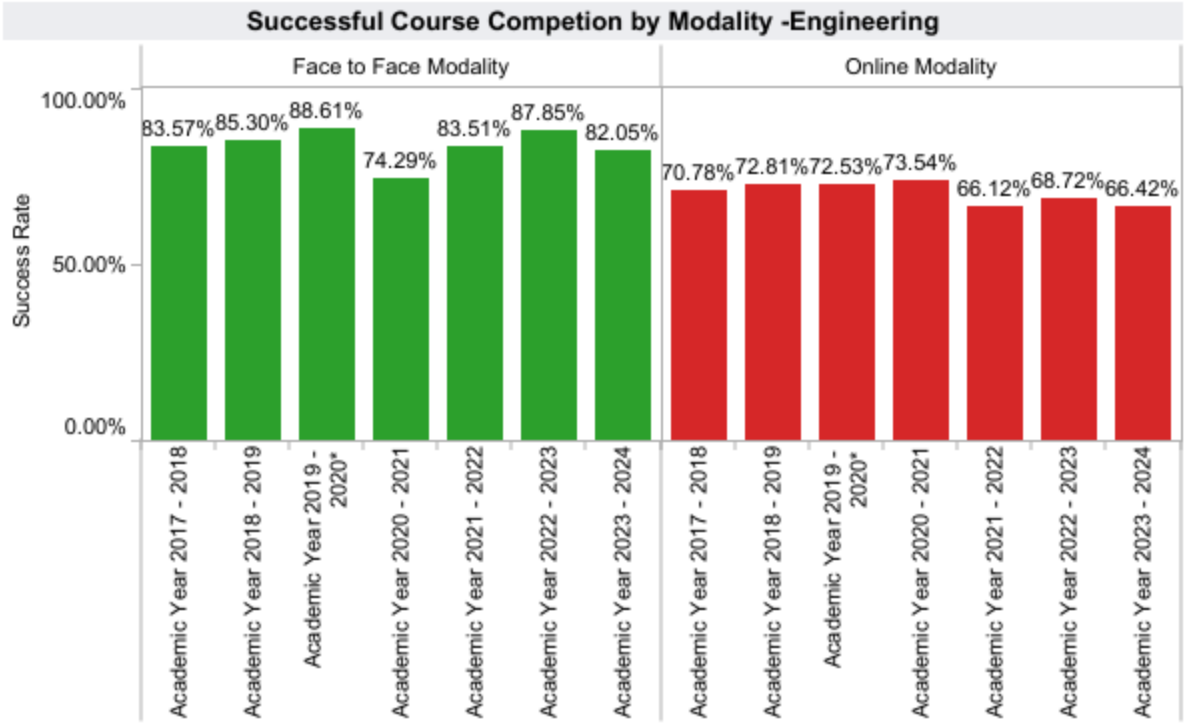
D. **Student Success—Course Completion by Modality (Insert Data Chart)**

SLOCCCD Program Review Data: Successful Course Completion

Select Department: Engineering

Course: All

Legend: Face to Face Modality, Online Modality



Successful Course Competion by Modality Table - Engineering

		Academic Year 2017 - 2018	Academic Year 2018 - 2019	Academic Year 2019 - 2020*	Academic Year 2020 - 2021	Academic Year 2021 - 2022	Academic Year 2022 - 2023	Academic Year 2023 - 2024
Face to Face Modality	Department S..	83.57%	85.30%	88.61%	74.29%	83.51%	87.85%	82.05%
	Total Depart..	487.0	551.0	588.0	140.0	487.0	685.0	625.0
Online Modality	Department S..	70.78%	72.81%	72.53%	73.54%	66.12%	68.72%	66.42%
	Total Depart..	510.0	629.0	592.0	860.0	366.0	230.0	267.0

Face-to-face success rates are much higher than online success rates. There is high variability when the data is disaggregated on a course-by-course basis. The Engineering department is planning on offering more face-to-face courses (especially in the traditional required engineering course sequence – ENGR 210, 217, 248, 250, 251, and 252A and B) to ensure student success. Additionally, prerequisite enforcement will help to ensure that students enrolled in ENGR courses come equipped with the necessary skills to ensure

success.

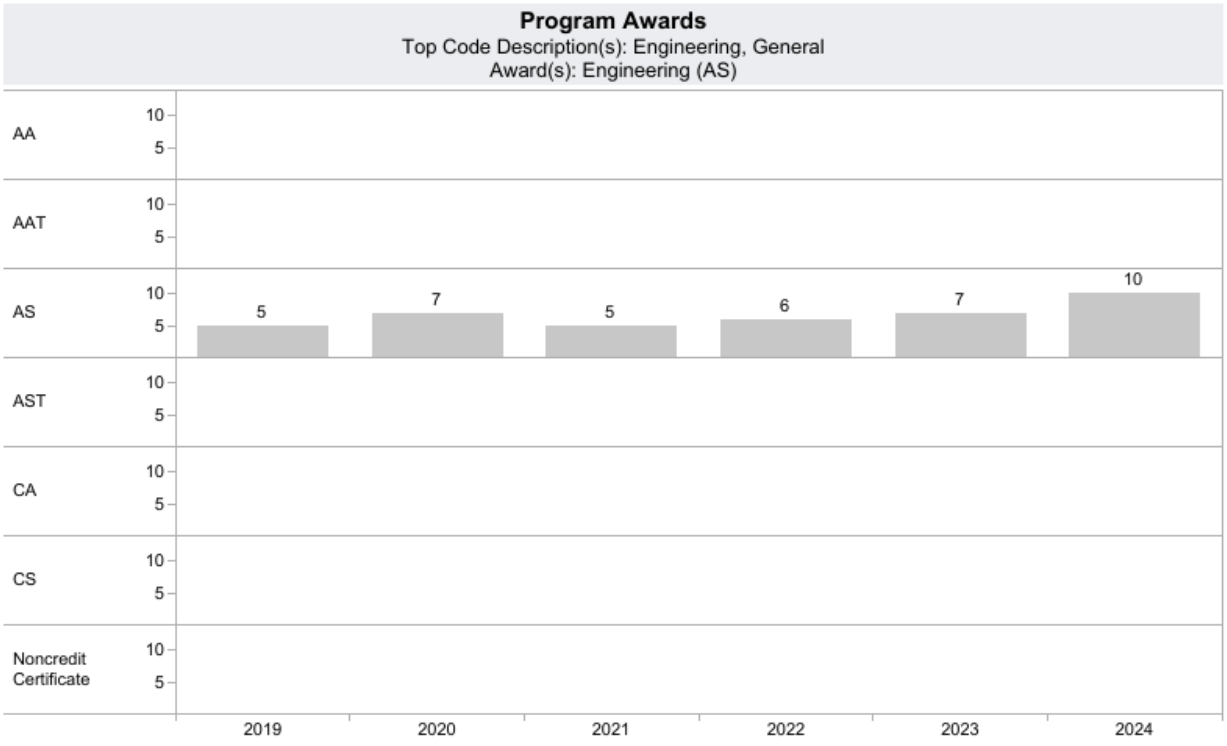
E. Degrees and Certificates Awarded (Insert Data Chart)

SLOCCCD Program Review Data: Degrees and Certificates Awarded

Program: Engineering, General

Award Type: All

Area of Study All



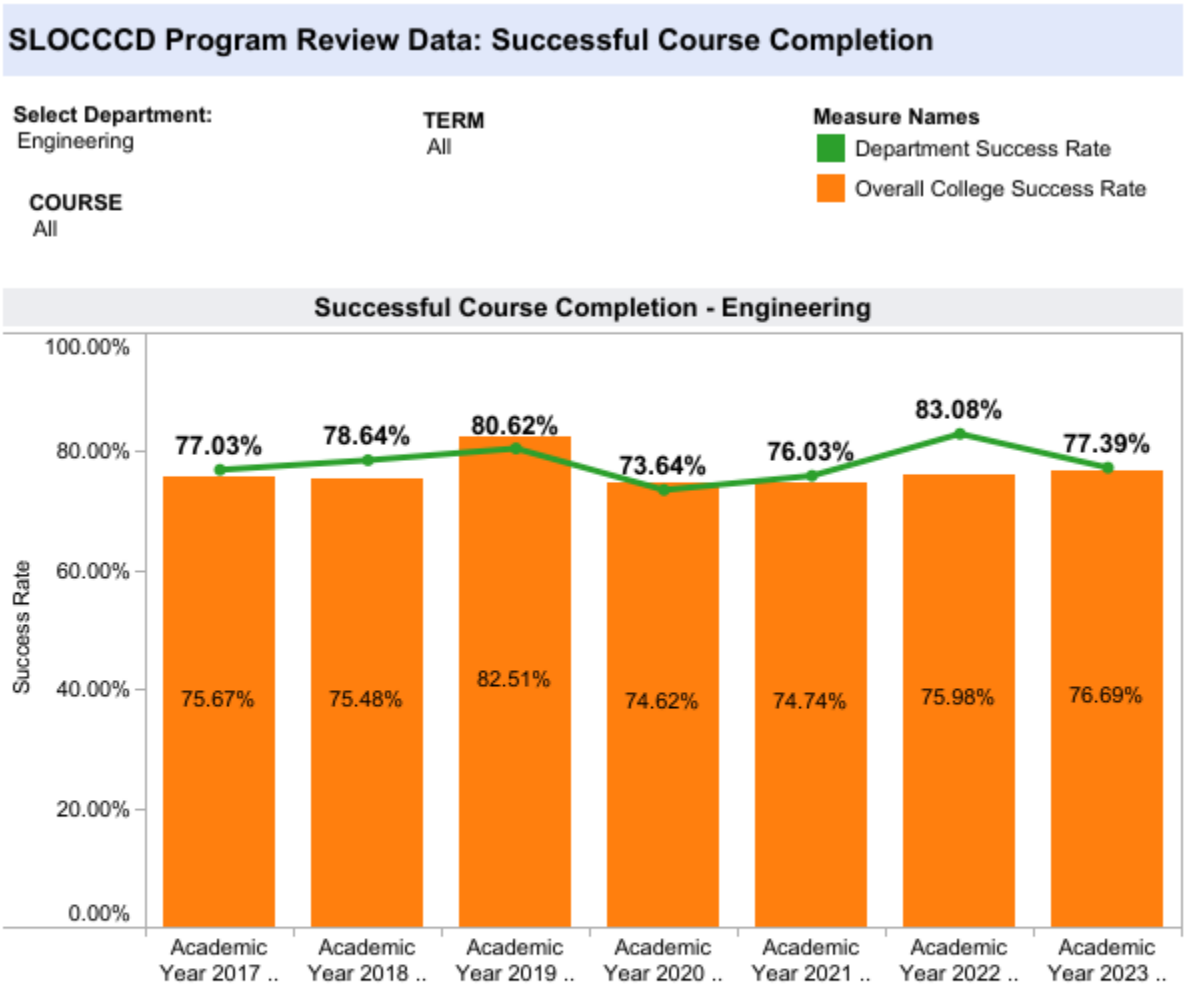
Program Awards Table

Award Type	Award	2019	2020	2021	2022	2023	2024
AS	Engineering (AS)	5	7	5	6	7	10
	Total	5	7	5	6	7	10
Grand Total		5	7	5	6	7	10

Few degrees are awarded each year for ENGR students. This is largely due to two factors:

1. Students do not value an AS as a degree that is useful in the workforce
2. Since only local AS degrees are available for an ENGR degree, students do not take the additional courses required for completion since the local degree requirements have not been aligned with transfer coursework requirements at four-year institutions.

F. **General Student Success – Course Completion (Insert Aggregated Data Chart)**



Engineering Success Rate Table

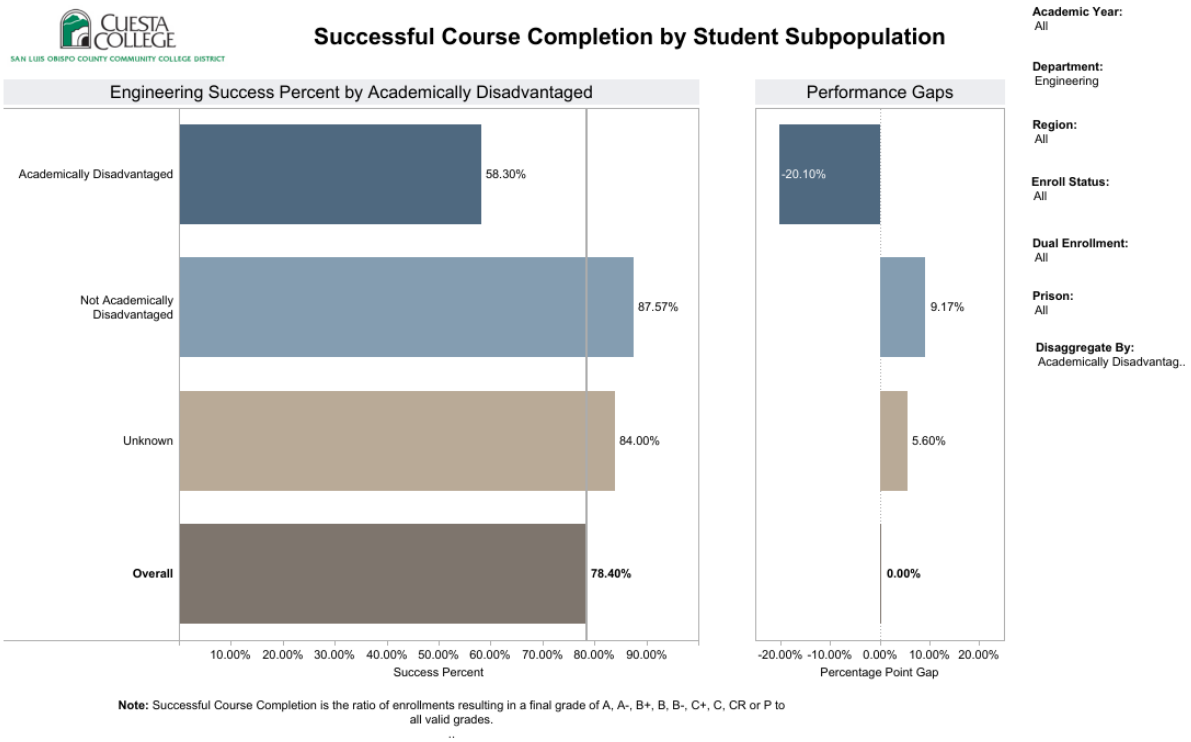
	Academic Year 2017 - 2018	Academic Year 2018 - 2019	Academic Year 2019 - 2020*	Academic Year 2020 - 2021	Academic Year 2021 - 2022	Academic Year 2022 - 2023	Academic Year 2023 - 2024
Department Success..	77.03%	78.64%	80.62%	73.64%	76.03%	83.08%	77.39%
Total Enrollments	997	1,180	1,180	1,000	853	915	892

Student success continues its recent trend, being slightly higher than the college average. Enforcement of ENGR prerequisites will likely result in improved success rates.

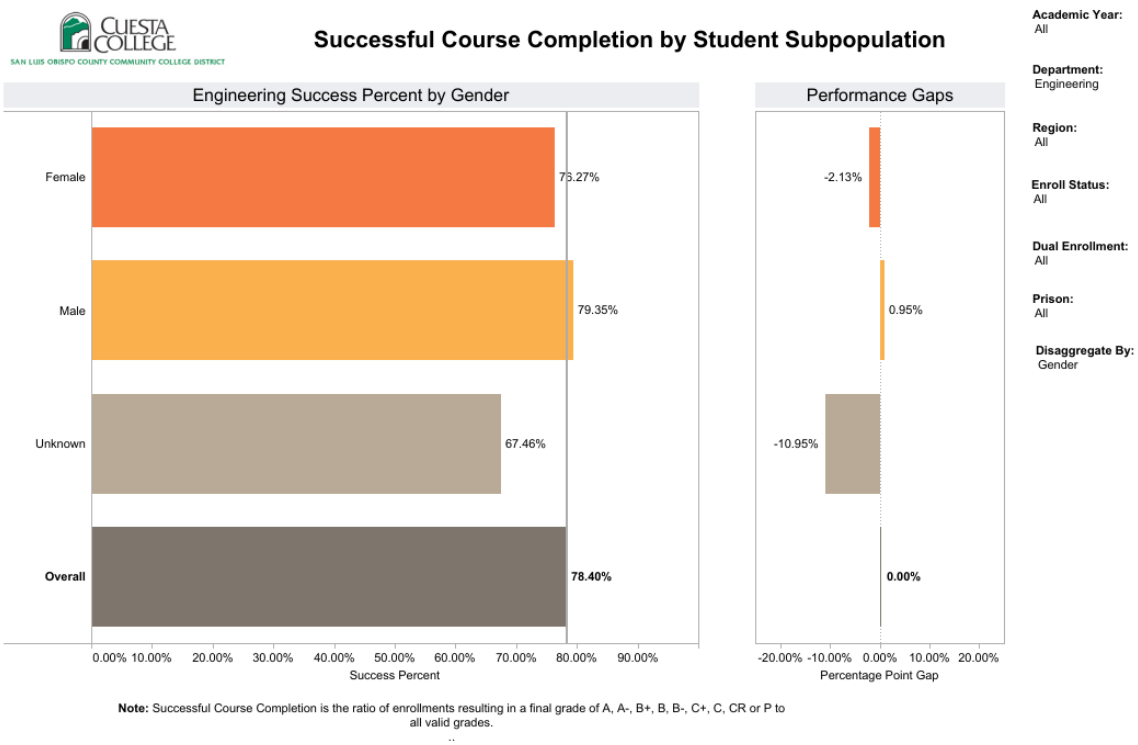
G. Review the **Disaggregated Student Success** charts; include any charts that you will reference. Describe any departmental or pedagogical outcomes that have occurred as a result of programmatic discussion regarding the data presented.

The following are some questions you might want to consider:

- What specific groups are experiencing inequities? What patterns do you notice in the data? How have the equity gaps changed since the previous academic year?
- What professional opportunities are your program faculty participating in to address closing equity gaps?
- What strategies, policies and/or practices in your program have you implemented or what could be improved to better support students who experience equity gaps?



The larges performance gap is for Academically Disadvantaged students. Prerequisite enforcement, or lack thereof, disproportionately negatively affects this student population since students are allowed to enroll without the requisite skills for success. Program faculty will be closely monitoring this gap and will work to close it.



There is a very small performance gap between men and women in ENGR courses. The actual number of enrollments by men and women is the real story; men outnumber women by a three-to-one ratio in engineering courses. Program faculty will continue to promote the Society of Women Engineers and other outreach activities targeted at increasing the number of women who enroll in ENGR courses.

PROGRAMS AND CURRICULUM REVIEW PROGRESS

Section 1: Progress Check on Scheduled Curriculum Updates from CPPR

Directions:

For the following questions, please refer to #3 in Section 1 of the Programs and Curriculum Review Progress portion of last year's APPW.

1. List those programs of study (degrees and/or certificates) and courses that were scheduled for major or minor modification during the 2024 academic year in the 5-year calendar of the Curriculum Review Worksheet.

   NONE

2. From the list generated in #1, identify those programs of study and courses that underwent the scheduled modifications during the 2024 academic year. Complete the table below for those items only.

Program of Study **OR** Prefix and Course #	Major/Minor Modification (select one)	Date completed (semester and year)
N/A		

3. From the list generated in #1, identify those programs of study and courses that did **not** undergo the modifications for which they were scheduled during the 2024 academic year. Complete the table below for those items only.

Program of Study OR Prefix and Course #	Past Due Date for Modification	Briefly state why modification was not completed on schedule	Re-scheduled date for modification (must be within 1 year)
N/A			

SECTION 2: PROGRESS CHECK ON PREVIOUSLY OUT-OF-DATE CURRICULUM UPDATES FROM CPPR

Directions: For the following questions, please refer to #3 in Section 1 of the Programs and Curriculum Review Progress portion of APPW from years before the previous academic year where incomplete curriculum updates were re-scheduled to be addressed in 2024.

1. List those programs of study and courses that are listed in the older APPW that were listed in #3. Complete the table below for those items only. If there were no courses included under #3 of previous APPW, please type "N/A" in the first box of the first row of the table.

Program of Study OR Prefix and Course #	Past Due Date for Modification	Re-scheduled date for modification	Completed (yes or no)
N/A			

2. From the list generated in #1, identify those programs of study and courses that did **not** undergo the modifications for which they were re-scheduled to during the 2024 academic year. Complete the table below for those items only. You may leave this table blank if you wrote "N/A" for the previous table.

Program of Study OR Prefix and Course #	Past Re-scheduled Due Date for Modification	Briefly state why modification was not completed as rescheduled	Second re-scheduled date for modification (must be within 6 months)
N/A			

OTHER RELEVANT PROGRAM DATA (OPTIONAL)

Provide and comment on any other data that is relevant to your program such as state or national certification/licensure exam results, employment data, etc. If necessary, describe origin and/or data collection methods used.

PROGRAM OUTCOMES ASSESSMENT CHECKLIST AND NARRATIVE

CHECKLIST

☒ SLO assessment cycle calendar is up to date.
☒ All courses scheduled for assessment have been assessed in eLumen.
☒ Program Sustainability Plan progress report completed (if applicable).

NARRATIVE

Briefly describe program changes, if any, which have been implemented in the previous year as a direct result of the Program or Student Services Learning Outcomes Assessment. *If no program changes have been made as results of Program or Student Services Learning Outcomes Assessment, indicate: NONE.*

None.

PROGRAM PLANNING / FORECASTING FOR THE NEXT ACADEMIC YEAR

Briefly describe any program plans for the upcoming academic year. These may include but are not limited to the following: *(Note: you do not need to respond to each of the items below). If there are no forecasted plans for the program, for the upcoming year, indicate: NONE.*

A. New or modified plans for achieving program-learning outcomes and addressing equity gaps

As referenced above, student prerequisites will be enforced. All course curriculum will be reviewed and aligned with C-ID course descriptors. Student success will be a focus as more courses are offered exclusively in the face-to-face modality.

B. Anticipated changes in curriculum, scheduling or delivery modality
All course curriculum will be reviewed and aligned with C-ID course descriptors. Student success will be a focus as more courses are offered exclusively in the face-to-face modality.

C. Levels, delivery or types of services
None.

D. Facilities changes
A dedicated lab space and lab preparation area needs to be designated. Ideally, the 2100 building will be remodeled during a future bond project to provide lab technician support for ENGR lab courses.

E. Staffing projections
In order to ensure high standards and course consistency, two full-time ENGR faculty are required in the department. These positions support part-time evaluations and the evaluations of the numerous Dual Enrollment course evaluations that need to be conducted annually at local high schools.

F. Other
None.

PROGRAM SUSTAINABILITY PLAN PROGRESS REPORT

This section only needs to be completed if a program has an existing Program Sustainability Plan. Indicate whether objectives established in your Program Sustainability Plan have been addressed or not, and if improvement targets have been met.

Area of Decline or Challenge	**Identified Objective (Paste from PSP)**	**Planning Steps (Check all that apply)**	**Has the Improvement Target Been Met?**
Enrollment		☐ Identified ☐ Resources Allocated ☐ Implemented	**Select one**
Student Demand (Fill Rate)		☐ Identified ☐ Resources Allocated ☐ Implemented	**Select one**
Efficiency (FTES/FTEF)		☐ Identified ☐ Resources Allocated ☐ Implemented	**Select one**
Student Success – Course Completion		☐ Identified ☐ Resources Allocated ☐ Implemented	**Select one**
Student Success — Course Modality		☐ Identified ☐ Resources Allocated ☐ Implemented	**Select one**
Degrees and Certificates Awarded		☐ Identified ☐ Resources Allocated ☐ Implemented	**Select one**

If Program Sustainability Plan is still necessary, provide a brief description of how you plan to continue your PSP and update your PSP to remove any objectives that have been addressed and include any new objectives that are needed.