

2024 INSTRUCTIONAL ANNUAL PROGRAM PLANNING WORKSHEET

CURRENT YEAR: 2023-2024 PROGRAM(S): ENGINEERING
CLUSTER: TT AREA OF STUDY: ENGINEERING
LAST YEAR CPPR COMPLETED: 2020-2021 NEXT SCHEDULED CPPR: 2025-2026
CURRENT DATE: 3/3/2024

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 this [SharePoint 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):

A.S. Engineering

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.

The Engineering Program suffered the loss of our newly hired tenured Instructor in Engineering over the Summer (2023). This has required some difficult adjustments, but due to considerable effort by the division and the department, the effects on the program have been minimal (see content of this report). The hiring process for her replacement is ongoing, and a new Tenured Professor of Engineering should be on staff by the Fall (2024).

It should also be noted that the Engineering Program will be transferred to the Physical Sciences Division in Cluster 1 by the Fall 2024 semester. This will require some adjustments to the program, but there is no doubt that the Physical Sciences Division is a much better fit for what is clearly a transfer program. As noted in the last report, efforts to establish a Manufacturing certificate and degree have been terminated in the absence of necessary financial and industry support. To avoid future issues like this, criteria for entering new curriculum into the Engineering program at Cuesta College have been established and approved

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.

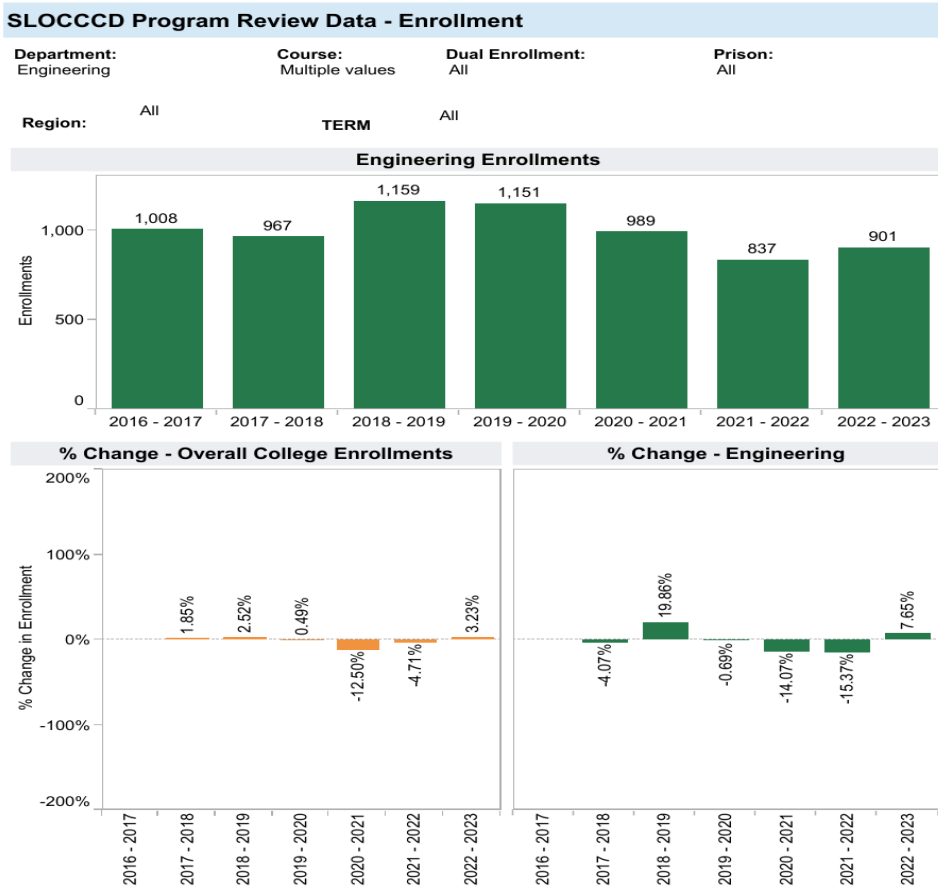
If you selected yes, please complete the Program Sustainability Plan Progress Report below after you complete the Data Analysis section. That data collection and analysis will help you to update, if necessary, your Program Sustainability Plan.

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)

Insert the data chart and explain observed differences between the program and the college.



Enrollment: Duplicated count of students who completed greater than 0 units in positive attendance courses or were present on census for all other accounting methods.

In 2021-2022, the program was still suffering from reduced enrollment due to COVID especially when “Hands-on” (in-person) labs are considered. We see the expected improvement in 2022-2023, which significantly exceeds the general college wide trend.

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

Insert the data chart and explain observed differences between the program and the college.

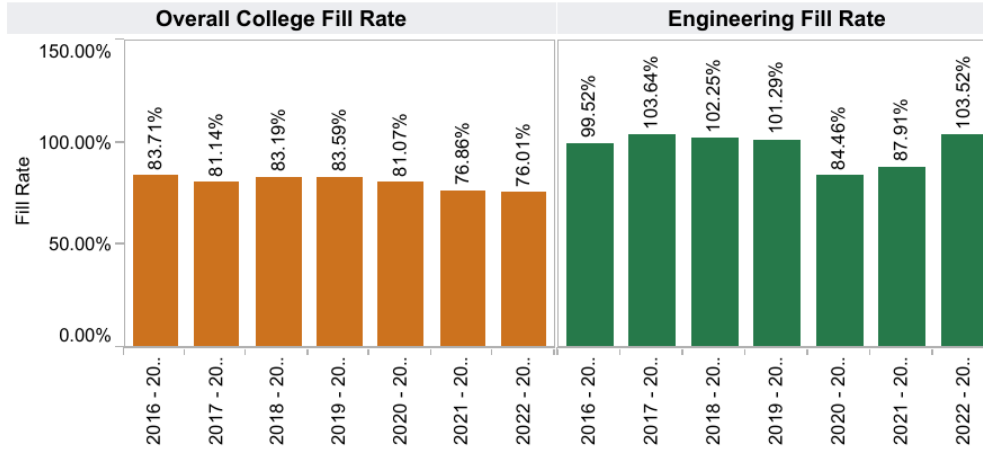
SLOCCCD Program Review Data - Student Demand (Fill Rate)

Department:
Engineering

Course:
All

Dual Enrollment:
All

Prison:
All



Fill Rate: The ratio of enrollments to class limits. Cross listed class limits are adjusted appropriately. Also, courses with zero class limits are excluded from this measure.

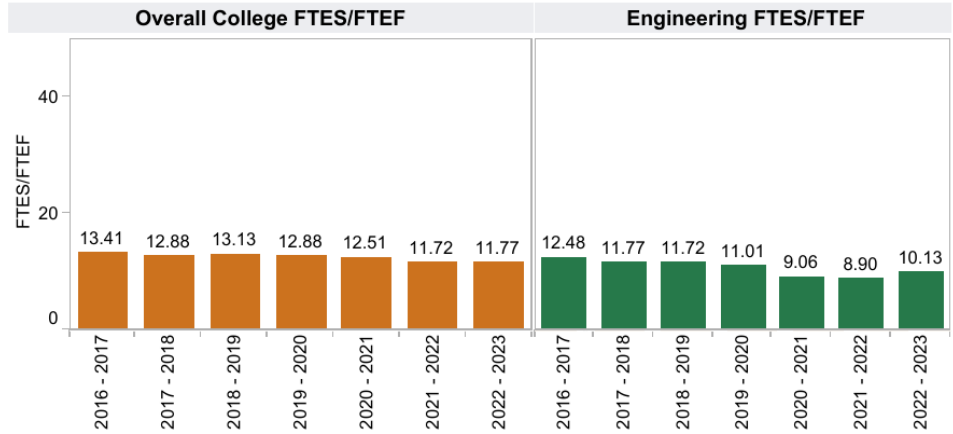
The fill rate has clearly recovered from the effects of the COVID pandemic, and continues to exceed the college average by a generous margin. In the current 2023-2024 year the number of sections in many ENGR courses had to be expanded to satisfy demand, and there were no classes/sections with excessively low enrollment.

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

Insert the data chart and explain observed differences between the program and the college.

SLOCCCD Program Review Data - Efficiency (FTES/FTEF)

Department: Engineering Course: Multiple values Dual Enrollment: All Prison: All



FTES/FTEF: The ratio of total FTES to Full-Time Equivalent Faculty
 (SXD4 Total-Hours/17.5)/XE03 FACULTY-ASSIGNMENT-FTE)

Values are lower compared to the college figures, since half of the engineering classes have labs that are limited to between 18 and 28. This clearly has a significant impact on efficiency, but the ratio is roughly the same and improving rapidly (see comments in Fill Rate section above).

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

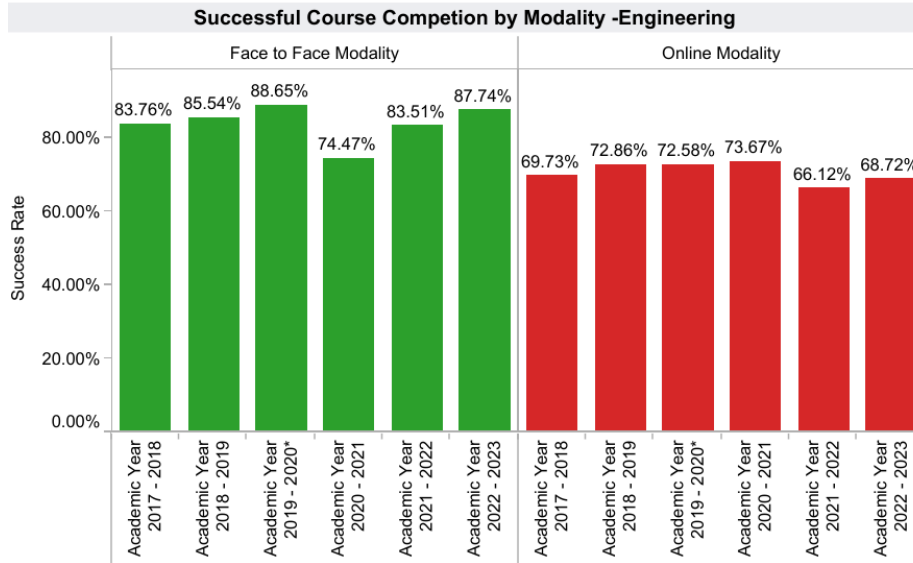
Insert the data chart and explain observed differences between the program and the college.

SLOCCCD Program Review Data: Successful Course Completion

Select Department:
Engineering

Course:
All

Legend:
■ Face to Face Modality
■ Online Modality

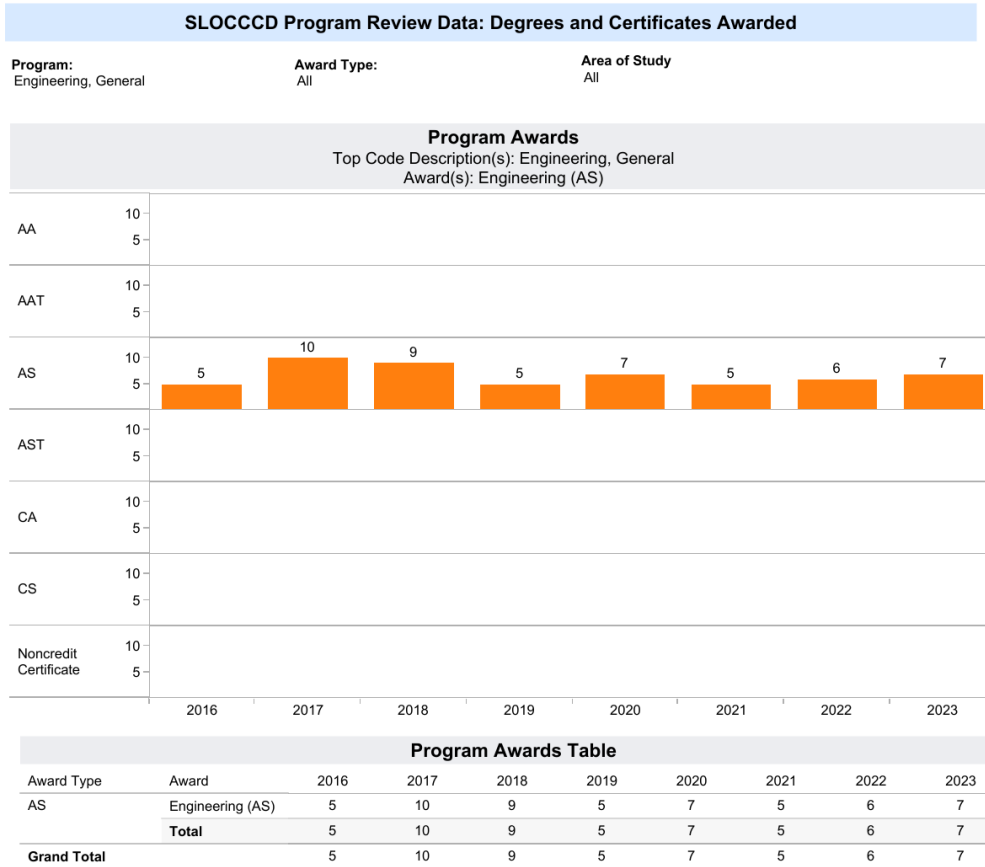


		Academic Year 2017 - 2018	Academic Year 2018 - 2019	Academic Year 2019 - 2020*	Academic Year 2020 - 2021	Academic Year 2021 - 2022	Academic Year 2022 - 2023
Face to Face Modality	Department Success Rate	83.76%	85.54%	88.65%	74.47%	83.51%	87.74%
	Total Department Enrollm..	511.0	560.0	591.0	141.0	487.0	687.0
Online Modality	Department Success Rate	69.73%	72.86%	72.58%	73.67%	66.12%	68.72%
	Total Department Enrollm..	522.0	630.0	593.0	868.0	366.0	230.0

Engineering face to face classes are better than the college average, whereas online engineering classes are significantly worse. Clearly this reflects the “Hands-on” nature of the Engineering curriculum.

E. Degrees and Certificates Awarded (Insert Data Chart)

Insert the data chart and explain observed differences between the program and the college.



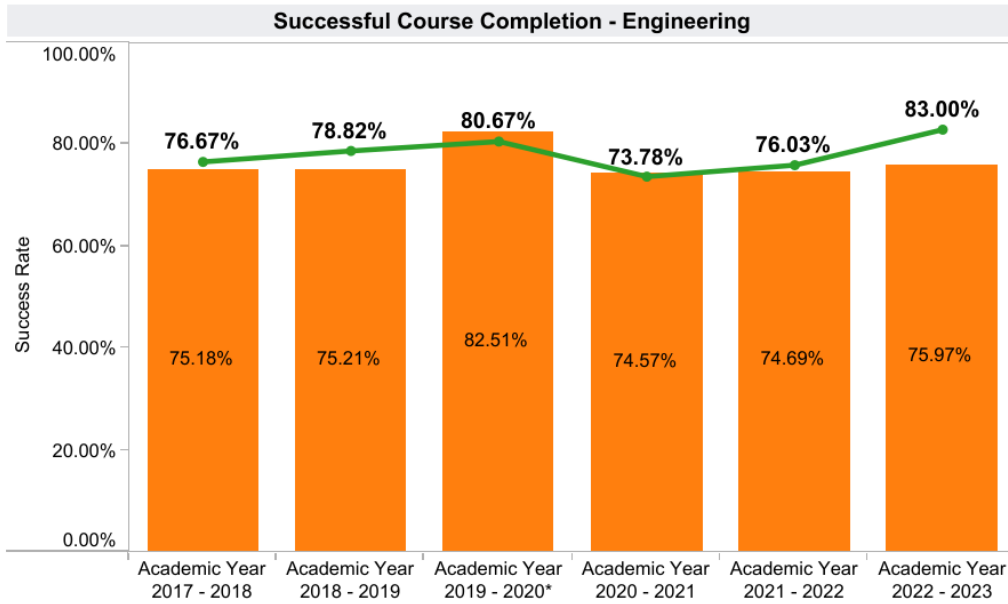
The number of Engineering Degrees awarded is slowly recovering from the Covid downturn which started in 2019. To improve this metric, requirements for the degree have been more clearly defined and streamlined, with better focus on the popular B.S. Degrees: Mechanical, Electrical, Civil, and Aerospace. This important work has been completed and is included as part of our Introduction to Engineering course.

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

Insert the data chart and explain observed differences between the program and the college.

SLOCCCD Program Review Data: Successful Course Completion

Select Department: Engineering TERM: All Measure Names: Department Success Rate, Overall College Success Rate
 COURSE: All

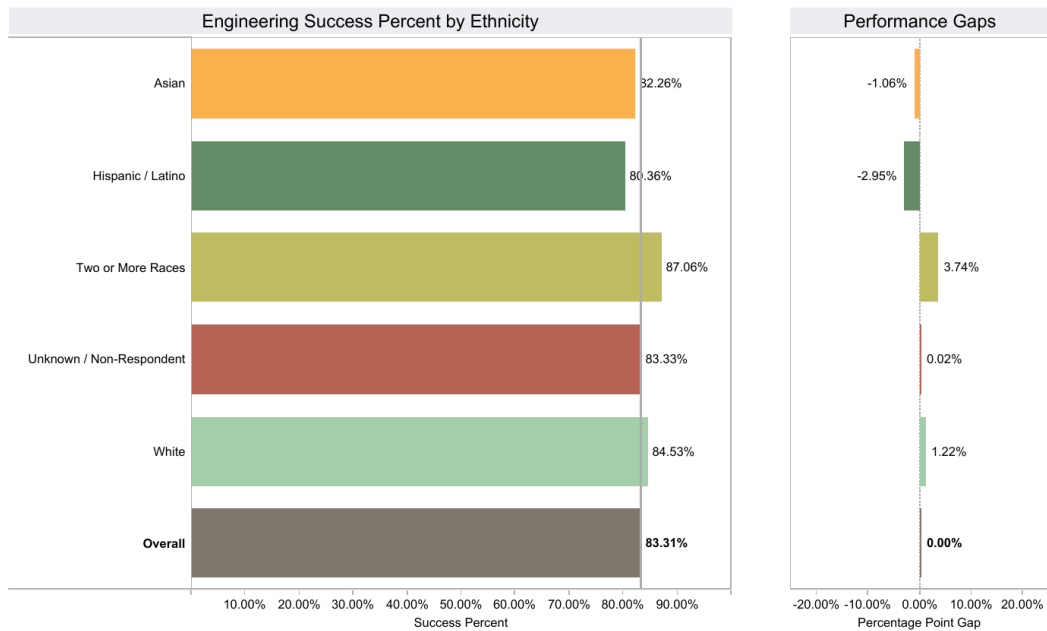


	Academic Year 2017 - 2018	Academic Year 2018 - 2019	Academic Year 2019 - 2020*	Academic Year 2020 - 2021	Academic Year 2021 - 2022	Academic Year 2022 - 2023
Department Success..	76.67%	78.82%	80.67%	73.78%	76.03%	83.00%
Total Enrollments	1,033	1,190	1,184	1,009	853	917

Student completion rates appear to be significantly better than the rest of the college.

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.

Successful Course Completion by Student Subpopulation



Note: Successful Course Completion is the ratio of enrollments resulting in a final grade of A, A-, B+, B, B-, C+, C, CR or P to all valid grades.

The table above shows disaggregated student success by ethnicity. There are performance gaps in all identified ethnicity categories (except for the “two or more races”). As an HSI, the Cuesta College engineering department is committed to understanding how to best serve historically underrepresented student populations. We will continue to investigate the causes of these gaps and work to narrow/eliminate.

Programs and Curriculum Review PROGRESS

- A. For the following questions, please refer to the 5-year update calendar in the [Curriculum Review Worksheet](#) (or classic template if your last CPPR was conducted before 2023) from your most recent CPPR.

List those programs of study (degrees and/or certificates) and courses that were scheduled for major or minor modification during the 2022-2023 year in the 5-year calendar of the Curriculum Review Worksheet.

The Manufacturing certificate and degree mentioned in the last 5 year plan were deactivated in 2022-2023. Cuesta has not been able to obtain financial and industry support necessary to teach the required curriculum.

From the list generated in #1, identify those programs of study and courses that underwent the scheduled modifications during the 2022-2023 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)
None		

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 2022-2023 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)
None			

B. For the following questions, please refer to Part A, #3 of the previous year's APPW.

List those programs of study and courses that are listed in previous APPW that were listed under #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 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)
Manufacturing certificate and degree ENGR 200 ENGR 205 ENGR 206L	April 30, 2023		Yes

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 ___ 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)
None			

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.*

- SLO Assessments in eLumen were last completed prior to the engineering program review in 2021.
- A new assessment schedule has been developed as a result of Dr. Adams leaving Cuesta.
- The next round of SLO assessments is scheduled for Fall 2024 for all ENGR classes.
- SLOAs will be completed every fall semester thereafter as there are no spring only course offerings within the program.

Program Planning / Forecasting for the Next Academic Year

Briefly describe any program plans for the upcoming academic year.

As mentioned in the General Program Update section above, Dr. Elizabeth Adams has left Cuesta College and joined the Engineering faculty At California Polytechnic University. This has caused significant short term problems that were handled quite well by department and division administrators, faculty, and staff. A replacement candidate is being recruited through the established hiring process and should be joining the faculty in Fall 2024. The performance of the Engineering program relative to the College and its own recent history has been excellent. Obviously, there will be some restructuring of the Engineering A.S. Degree program when the Engineering Department moves to the Physical Sciences Division next year, but that should prove to be a very positive and long overdue transition.

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		<input type="checkbox"/> Identified <input type="checkbox"/> Resources Allocated <input type="checkbox"/> Implemented	Select one
Student Demand (Fill Rate)		<input type="checkbox"/> Identified <input type="checkbox"/> Resources Allocated <input type="checkbox"/> Implemented	Select one
Efficiency (FTES/FTEF)		<input type="checkbox"/> Identified <input type="checkbox"/> Resources Allocated <input type="checkbox"/> Implemented	Select one
Student Success – Course Completion		<input type="checkbox"/> Identified <input type="checkbox"/> Resources Allocated <input type="checkbox"/> Implemented	Select one
Student Success — Course Modality		<input type="checkbox"/> Identified <input type="checkbox"/> Resources Allocated <input type="checkbox"/> Implemented	Select one
Degrees and Certificates Awarded		<input type="checkbox"/> Identified <input type="checkbox"/> Resources Allocated <input type="checkbox"/> 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.