

2022 INSTRUCTIONAL ANNUAL PROGRAM PLANNING WORKSHEET

CURRENT YEAR: 2021-2022

PROGRAM: ENGINEERING

CLUSTER: WED

LAST YEAR CPPR COMPLETED: 2017

NEXT SCHEDULED CPPR: 2025-2026

CURRENT DATE: 3/26/2022

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](#)
- 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 degrees and/or certificates:

Click here to enter text.

GENERAL PROGRAM UPDATE

Describe significant changes, if any, to program mission, purpose or direction. *If there are not any, indicate: NONE.*

Efforts to establish a Manufacturing certificate and degree have been suspended in the absence of necessary financial and industry support.

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.

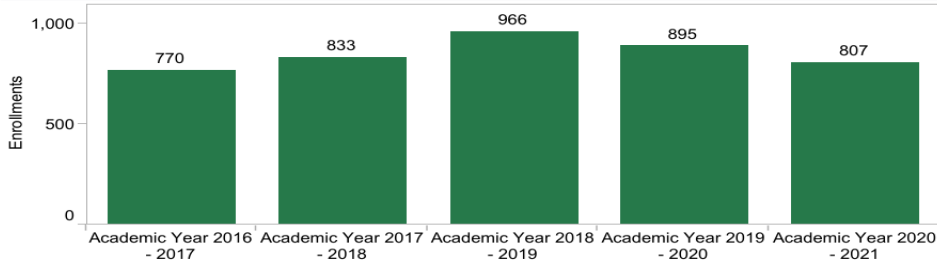
[General Enrollment \(Insert Aggregated Data Chart\)](#)

Insert the data chart and explain observed differences between the program and the college. The program suffered from reduced enrollment due to COVID especially when “Hands-on” (in-person) labs are considered. Also, ENGR 217 Electric Circuits has been removed from the comparison. It was not offered in 2020-2021.

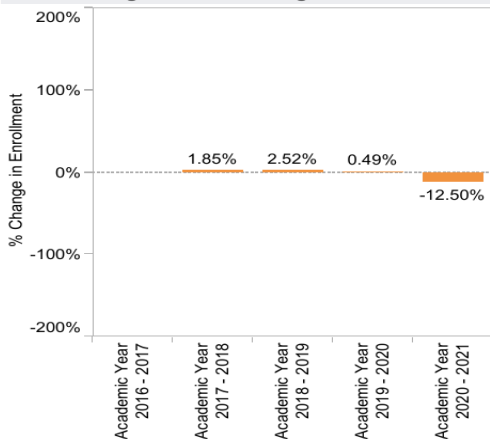
SLOCCCD Program Review Data - Enrollment

Department: Engineering **Course:** Multiple values **Dual Enrollment:** Not Dual Enrollment **Prison:** All

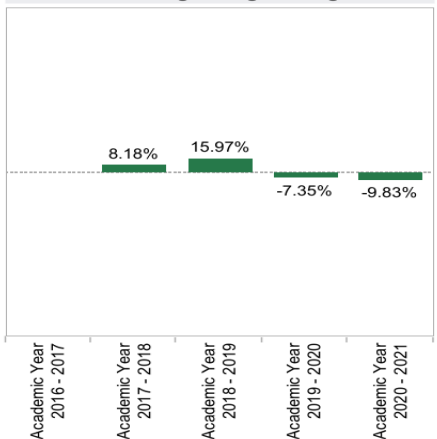
Engineering Enrollments



% Change - Overall College Enrollments



% Change - Engineering



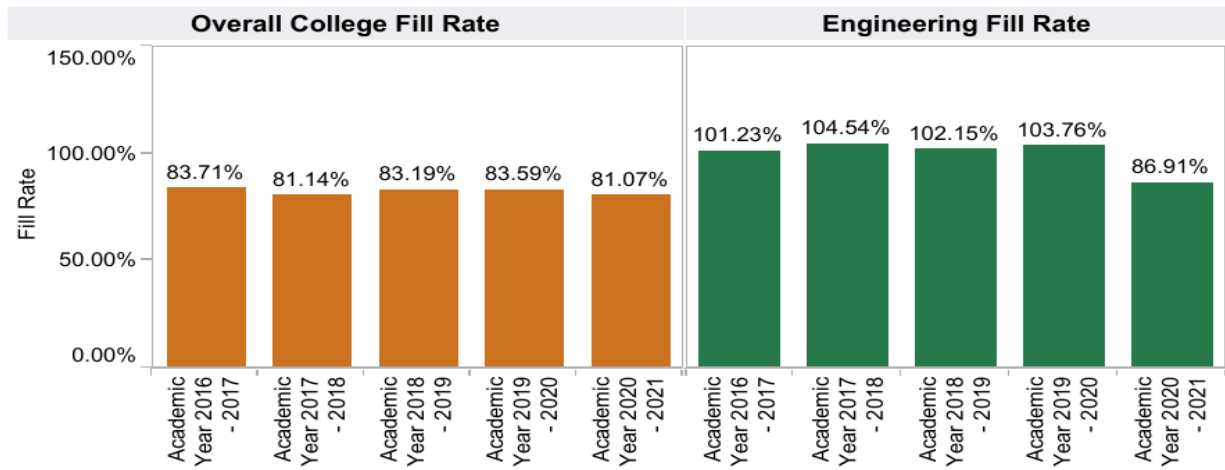
Enrollment: Duplicated count of students who completed greater than 0 units in positive attendance courses or were present on census for all other accounting methods.

[General Student Demand \(Fill Rate\) \(Insert Aggregated Data Chart\)](#)

Insert the data chart and explain observed differences between the program and the college. The fill rate was hurt by sections of ENGR 250 and ENGR 251 that were lightly filled but allowed to continue (generous criteria due to COVID). In the future, the number of sections in all ENGR courses will be adjusted to demand, and courses/sections with excessively low enrollment will be cancelled.

SLOCCCD Program Review Data - Student Demand (Fill Rate)

Department: Engineering **Course:** Multiple values **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.

[General Efficiency \(FTES/FTEF\) \(Insert Aggregated Data Chart\)](#)

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

Values are lower since half of the engineering classes have labs that are limited to between 18 and 28. This clearly has a significant impact on efficiency.

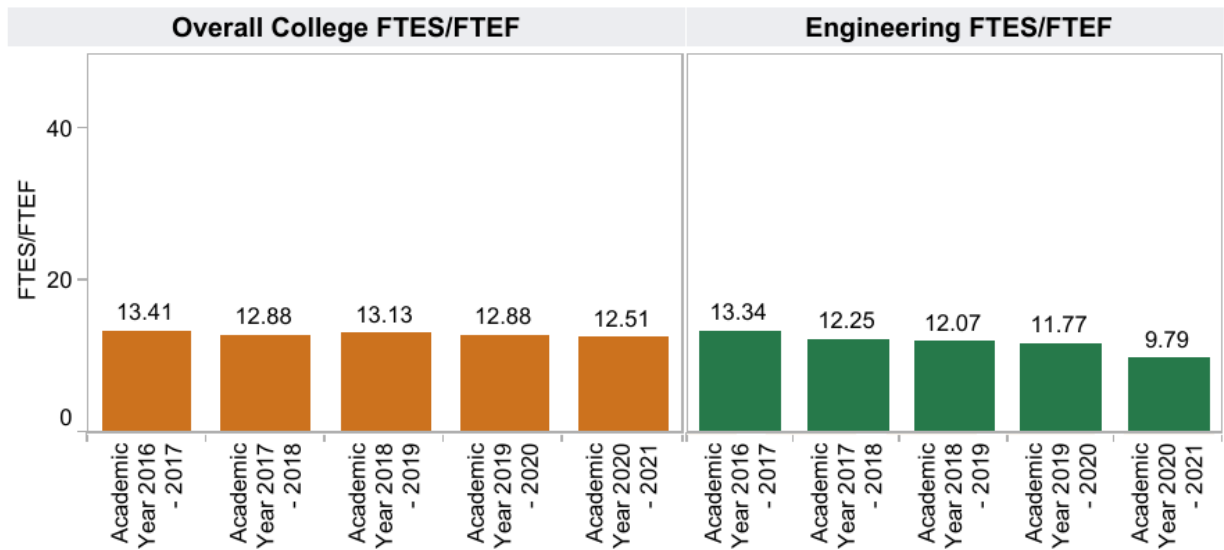
SLOCCCD Program Review Data - Efficiency (FTES/FTEF)

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)

[Student Success—Course Completion by Modality \(Insert Data Chart\)](#)

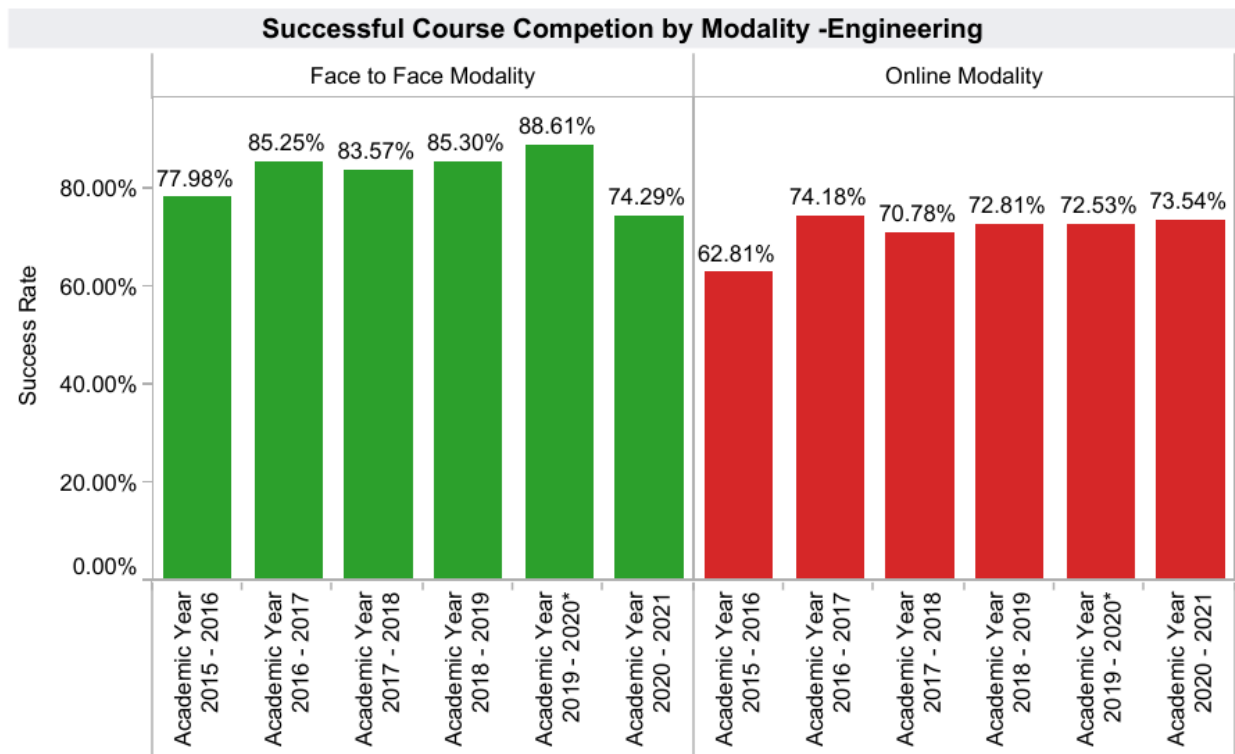
Insert the data chart and explain observed differences between the program and the college.

Engineering face to face classes have clearly been disproportionately impacted by COVID (Hands-on Lab sections), whereas online engineering classes are the same as the campus average.

Select Department:
Engineering

Course:
All

Legend:
■ Face to Face Modality
■ Online Modality



| | | Academic Year 2015 - 2016 | Academic Year 2016 - 2017 | Academic Year 2017 - 2018 | Academic Year 2018 - 2019 | Academic Year 2019 - 2020* | Academic Year 2020 - 2021 |
|-----------------------|----------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------------------------|---------------------------|
| Face to Face Modality | Department Success Rate | 77.98% | 85.25% | 83.57% | 85.30% | 88.61% | 74.29% |
| | Total Department Enrollm.. | 447.0 | 556.0 | 487.0 | 551.0 | 588.0 | 140.0 |
| Online Modality | Department Success Rate | 62.81% | 74.18% | 70.78% | 72.81% | 72.53% | 73.54% |
| | Total Department Enrollm.. | 484.0 | 488.0 | 510.0 | 629.0 | 592.0 | 860.0 |

[Degrees and Certificates Awarded \(Insert Data Chart\)](#)

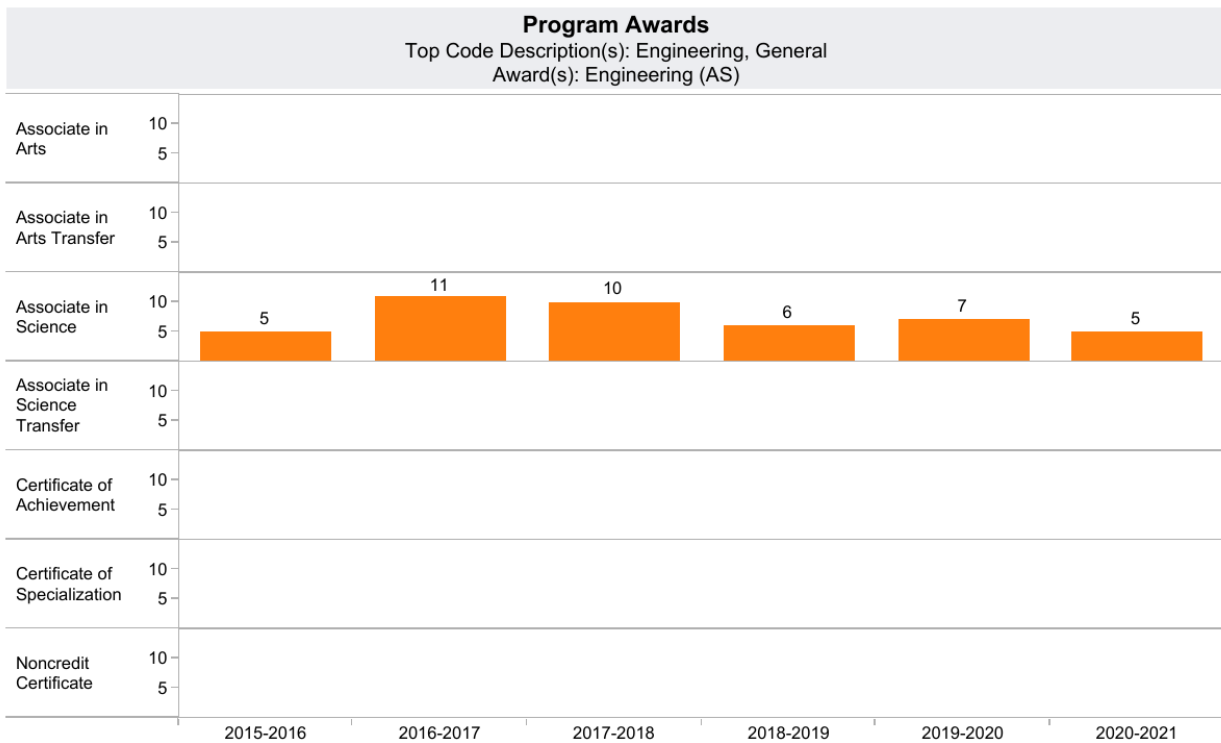
Insert the data chart and explain observed differences between the program and the college.

The new CAD certificate was developed and should be very successful once the necessary equipment is purchased and installed (see Resource Planning). The Engineering Degree requirements should probably be updated and improved (better focused on the popular B.S. Degrees: Mechanical, Electrical, Civil, and Aerospace).

SLOCCCD Program Review Data: Degrees and Certificates Awarded

Program:
Engineering, General

Award Type:
All



Program Awards Table

| Award Type | Award | 2015-2016 | 2016-2017 | 2017-2018 | 2018-2019 | 2019-2020 | 2020-2021 |
|----------------------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Associate in Science | Engineering (AS) | 5 | 11 | 10 | 6 | 7 | 5 |
| | Total | 5 | 11 | 10 | 6 | 7 | 5 |
| Grand Total | | 5 | 11 | 10 | 6 | 7 | 5 |

Program Awards: The number of degrees and certificates awarded by program type

[General Student Success – Course Completion \(Insert Aggregated Data Chart\)](#)

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.

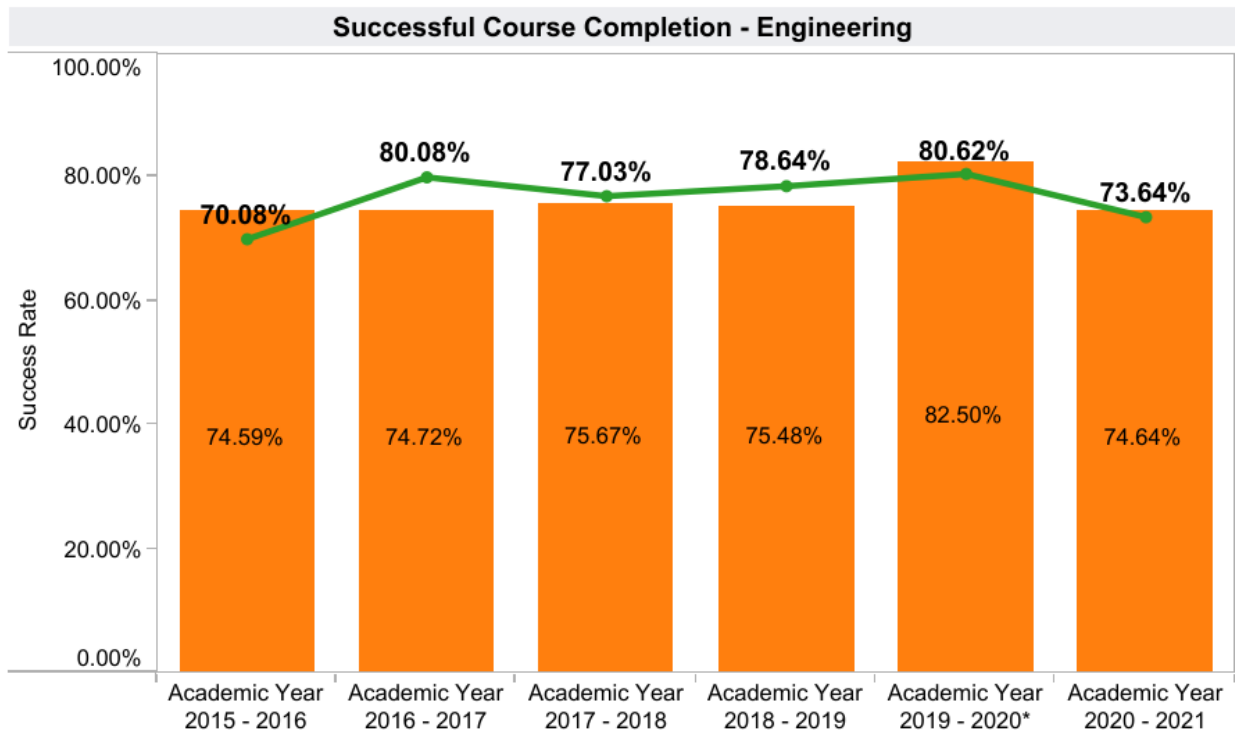
SLOCCCD Program Review Data: Successful Course Completion

Select Department:
Engineering

TERM
All

Measure Names
■ Department Success Rate
■ Overall College Success Rate

COURSE
All



| | Academic Year 2015 - 2016 | Academic Year 2016 - 2017 | Academic Year 2017 - 2018 | Academic Year 2018 - 2019 | Academic Year 2019 - 2020* | Academic Year 2020 - 2021 |
|----------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------------------------|---------------------------|
| Department Success.. | 70.08% | 80.08% | 77.03% | 78.64% | 80.62% | 73.64% |
| Total Enrollments | 931 | 1,044 | 997 | 1,180 | 1,180 | 1,000 |

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.*

A new CAD certificate was developed and equipment/technology resources have been requested and are being installed as it arrives (see Resource Planning). Engineering A.S. Degree requirements are being reviewed.

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
- B. Anticipated changes in curriculum, scheduling or delivery modality
- C. Levels, delivery or types of services
- D. Facilities changes
- E. Staffing projections
- 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 | | <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.