INSTRUCTIONAL ANNUAL PROGRAM PLANNING WORKSHEET FOR 2017-2018

CURRENT YEAR: 2017-2018 **PROGRAM: PHYSICS**
CLUSTER: MATH AND SCIENCES **LAST YEAR CPPR COMPLETED: 2014-15**
NEXT SCHEDULED CPPR: 2018-19 **CURRENT DATE: 2/24/2017**

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:
Physics A.S., Physics AD-T

GENERAL PROGRAM UPDATE

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

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

In addition to other data that is relevant to your program, institutional program data is available on the SLOCCCD Institutional Research and Assessment Program Review Data Dashboard site. Please paste the charts into this document, and respond to the prompts for each data element. Please also comment on your program's data and how it compares to the overall college data. Take time to work with your faculty to review the disaggregated data. Several measures can be "drilled down" to reveal differentiated results based on location, modality, ethnicity, age, gender and so on. This disaggregated data can reveal a great deal about your program's effectiveness.

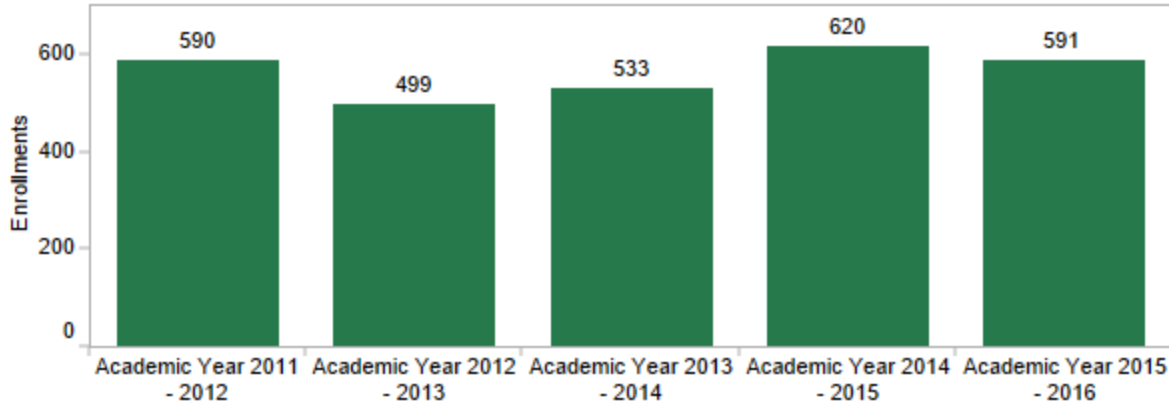
Note: Your responses to the prompts for the data elements below should be for the entire program. If this APPW is for multiple degrees and/or certificates then you MAY want to comment on each degree and/or certificate, or discuss them holistically for the entire program being sure to highlight relevant trends for particular degrees and/or certificates, if necessary.

SLOCCCD Program Review Data - Enrollment

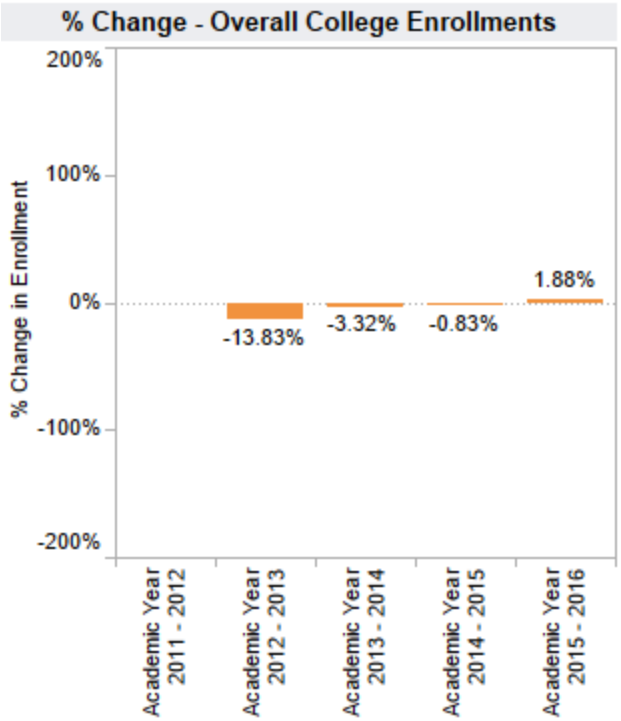
Department: Physics

Course: All

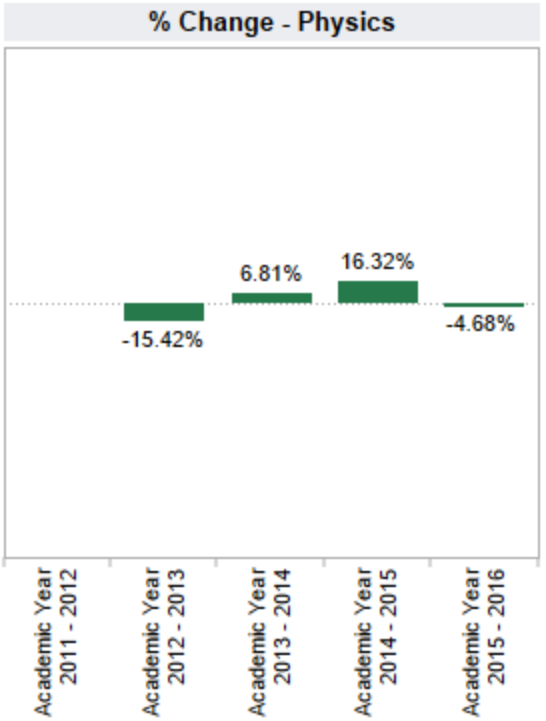
Physics Enrollments



% Change - Overall College Enrollments



% Change - Physics



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.

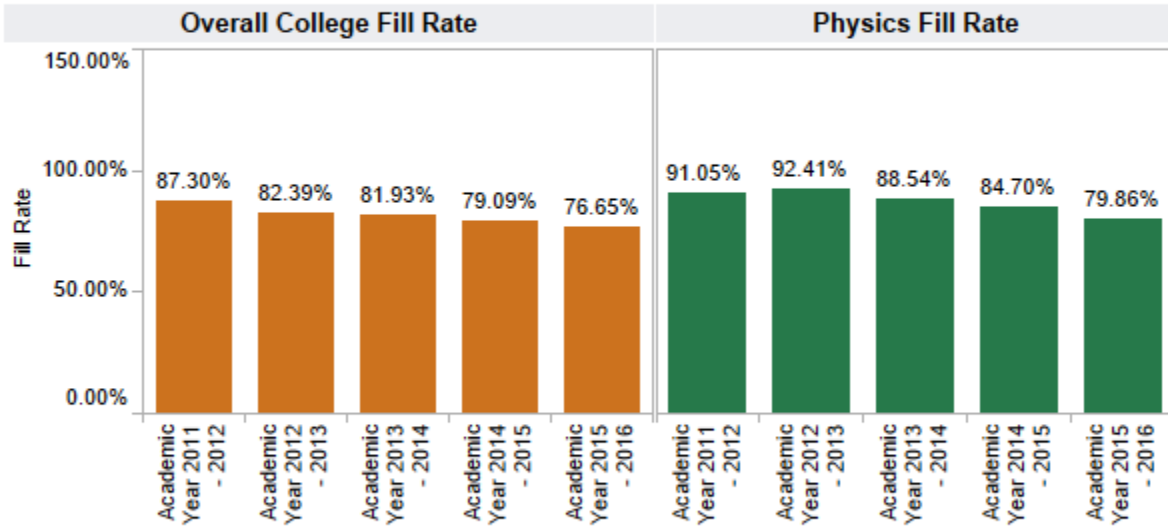
The four year trend in physics courses shows an increase in enrollments. Enrollments this last year fell by 4.7% over the previous year. It is anticipated that the enrollments increase as more engineering students are required to take the third and final semester of the PHYS 208 sequence. Underrepresented groups include: 30-34 year old students and females. Given that the bulk of

students taking PHYS courses are transfer students, it is not surprising that the 30-34 age group is underrepresented. It is unfortunate that we do not have a higher percentage of women in our courses and we continue to try to reach out to capture more females in STEM majors.

SLOCCCD Program Review Data - Student Demand (Fill Rate)

Department: Physics

Course: All



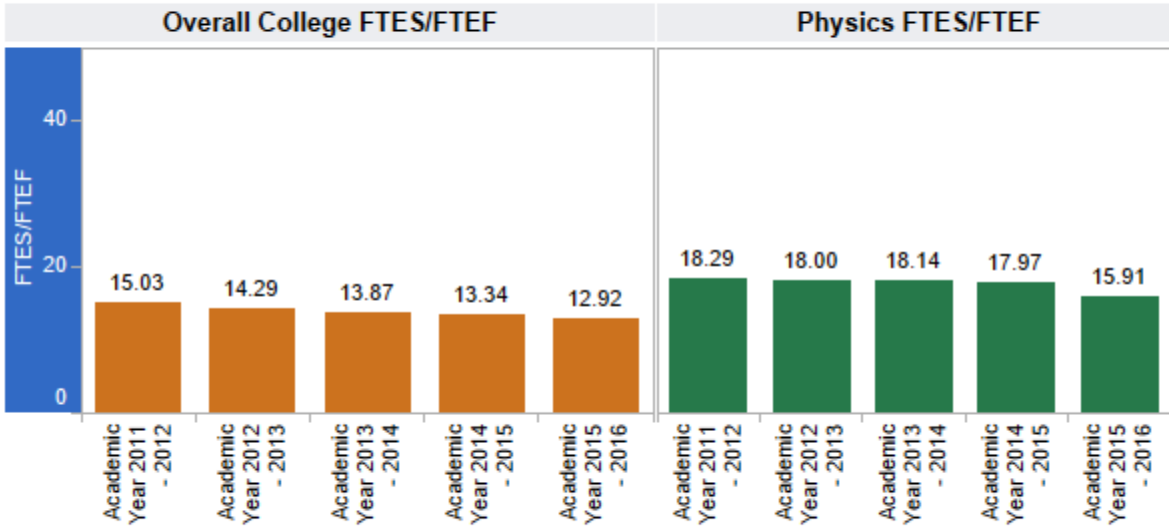
Fill Rate: The ratio of enrollments to class limits. Cross listed class limits are adjusted appropriately. Also, courses with zero class limits are excluded from this measure.

Overall, PHYS fill rates mirror the college's overall fill rate, although the PHYS fill rate is higher than the college as a whole. PHYS 205 courses have a higher fill rate when compared to the PHYS 208 courses. PHYS 208 suffers partly from the need to ensure that students are able to meet degree objectives in a two year time frame. As such, some sections run at lower fill rates. As more large classroom space becomes available, the department can work to maximize fill rates by adding sections as existing sections fill during the registration process.

SLOCCCD Program Review Data - Efficiency (FTES/FTEF)

Department: Physics

Course: All



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

PHYS program efficiency has consistently been at least 3 FTES/FTEF higher than the college average. 2015-16 saw a drop in efficiency. This was partly due to a decrease in demand for PHYS 208 sections. This trend should reverse given new requirements for ENGR majors to complete PHYS 208C. We will continue to offer multiple sections in one large lecture space as a way of maintaining high efficiency in our courses.

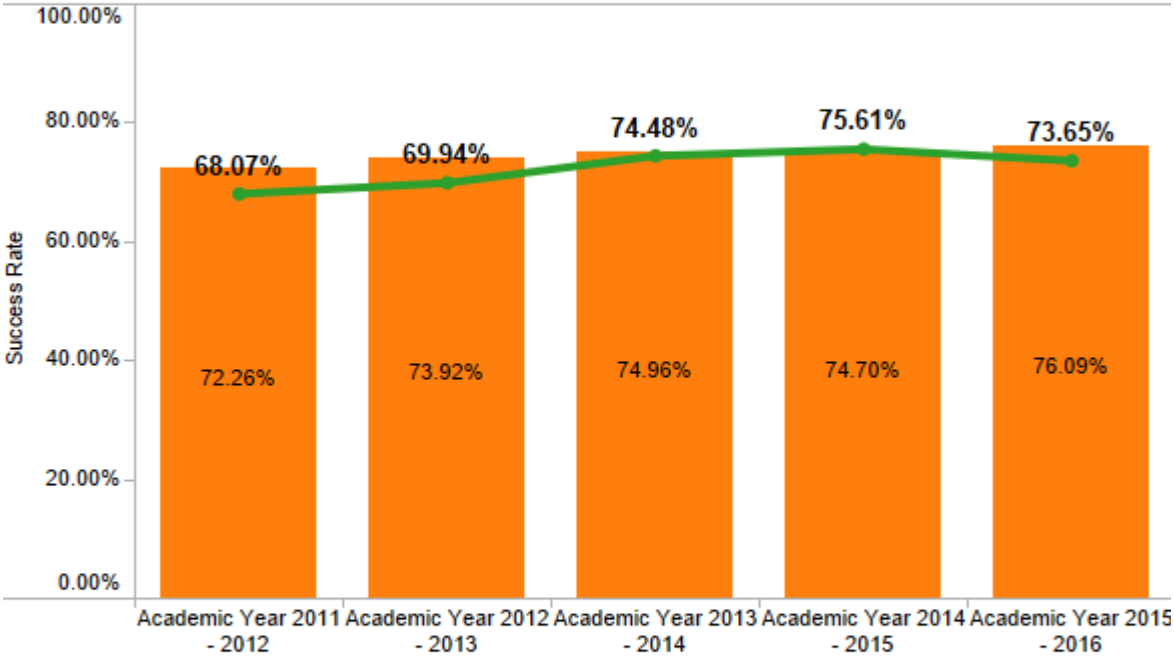
SLOCCCD Program Review Data: Successful Course Completion

Select Department: Physics

COURSE All

Legend:
Department Success Rate
Overall College Success Rate

Successful Course Completion - Physics



Physics Success Rate Table

	Academic Year 2011 - 2012	Academic Year 2012 - 2013	Academic Year 2013 - 2014	Academic Year 2014 - 2015	Academic Year 2015 - 2016
Department Success..	68.07%	69.94%	74.48%	75.61%	73.65%
Total Enrollments	592	499	533	620	592

The group that had the largest gap in success rate were students who were academically disadvantaged. Ironically, females were more successful in the course even though they are an underrepresented group. Promise students succeeded by 7.6% (80% success rate) over their peers (72.4% success rate). PHYS 208AX and PHYS 208BX were employed to give students additional opportunities to improve in the PHYS 208A and PHYS 208B courses. This may be one reason why success rates have increased in PHYS 208A. PHYS 208B has not seen such an increase, but it may be due to multiple math courses conflicting with the time that PHYS 208BX is offered. We have made changes to the day and time that PHYS 208AX and PHYS 208BX are offered to minimize conflicts. It is important to target additional students (particularly the weaker students) so that they may take

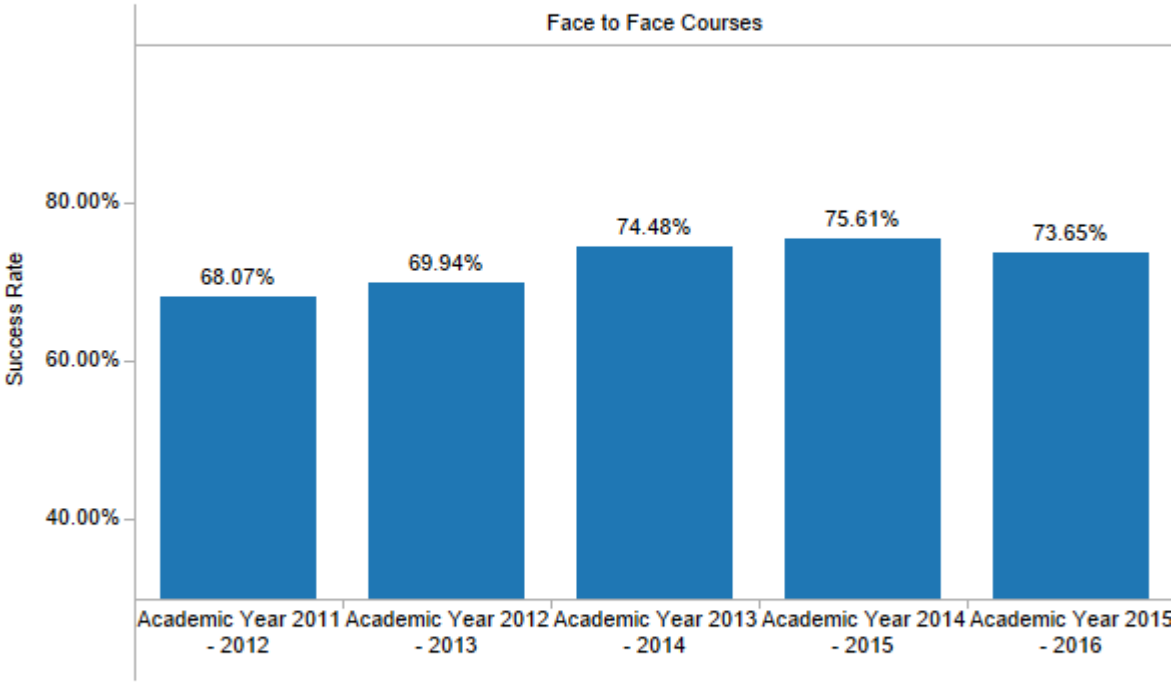
advantage of the opportunity that it provides.

SLOCCCD Program Review Data: Successful Course Completion

Select Department:
Physics

Legend:
Face to Face Courses

Successful Course Competion by Modality -Physics



Successful Course Competion by Modality Table - Physics

		Academic Year 2011 - 2012	Academic Year 2012 - 2013	Academic Year 2013 - 2014	Academic Year 2014 - 2015	Academic Year 2015 - 2016
Face to Face Courses	Department Success Rate	68.07%	69.94%	74.48%	75.61%	73.65%
	Total Department Enrollments	592.0	499.0	533.0	620.0	592.0

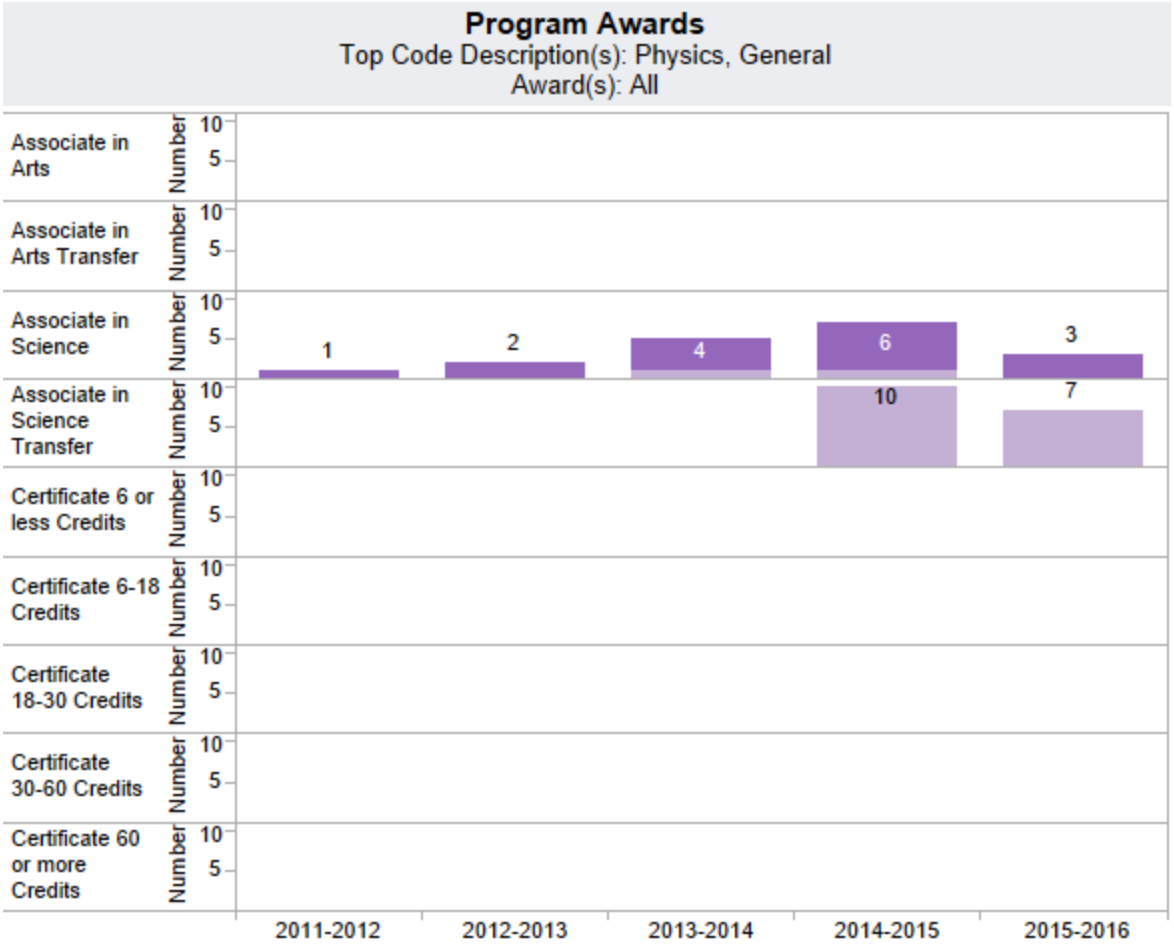
Physics completion rates have remained above 73% during the past three years. This may partially be due to the addition of PHYS 208AX and PHYS 208BX (formerly called PHYS 218). Additionally, a greater percentage of students are taking the PHYS 205 sequence which has less mathematical rigor than the PHYS 208 sequence.

-

SLOCCCD Program Review Data: Degrees and Certificates Awarded

Program: Physics, General

Award Type: All



Program Awards Table

Award T..	Award	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Associate in Science	Physics (AS)	1	2	4	6	3
	Physics (AST)			1	1	
	Total	1	2	5	7	3
Associate in Science Transfer	Physics (AST)				10	7
	Total				10	7

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

The addition of the AD-T for Physics has increased the number of students receiving degrees. It is believed that the number of students receiving AD-T's in Physics will increase during the next several years as students and counselors become better at identifying the degrees that students may be able to obtain upon graduation.

INSTRUCTIONAL ANNUAL PROGRAM PLANNING WORKSHEET FOR 2017-2018

PROGRAM OUTCOMES ASSESSMENT AND IMPROVEMENTS CHECKLIST AND NARRATIVE

CHECKLIST:

☒ SLO assessment cycle calendar is up to date:
☒ Date SLO assessment cycle calendar was last updated: 2/2017
☒ All courses scheduled for assessment have been assessed in eLumen
☒ Dates of last completed course assessments in eLumen : Fall 2016
☐ Program Sustainability Plan progress report completed

Narrative:
Program Learning Outcomes were changed to better match and align with revised course learning outcomes. Given this change, it will take a few semesters to obtain enough data to make program analysis valid.

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

PROGRAM SUSTAINABILITY PLAN PROGRESS REPORT

This section only needs to be completed if a program has an existing Program Sustainability Plan. Please 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	
Student Demand (Fill Rate)		☐ Identified ☐ Resources Allocated ☐ Implemented	
Efficiency (FTES/FTEF)		☐ Identified ☐ Resources Allocated ☐ Implemented	

Student Success – Course Completion		☐ Identified ☐ Resources Allocated ☐ Implemented	
Student Success— Course Modality		☐ Identified ☐ Resources Allocated ☐ Implemented	
Degrees and Certificates Awarded		☐ Identified ☐ Resources Allocated ☐ Implemented	

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.

INSTRUCTIONAL ANNUAL PROGRAM PLANNING WORKSHEET FOR 2017-2018

SURVEY

Please take 15 minutes to complete the IPPR Survey. Your assessment will serve to help us make the form and process better.

Thanks,

The IPPR Committee

Survey Link