

2021 INSTRUCTIONAL ANNUAL PROGRAM PLANNING WORKSHEET

CURRENT YEAR: 2020-2021

PROGRAM: ASTRONOMY

CLUSTER: MATH & SCIENCES

LAST YEAR CPPR COMPLETED: 2018-2019

NEXT SCHEDULED CPPR: 2023-2024

CURRENT DATE: 2/7/2021

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:

N/A.

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

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 \(Insert Aggregated Data Chart\)](#)

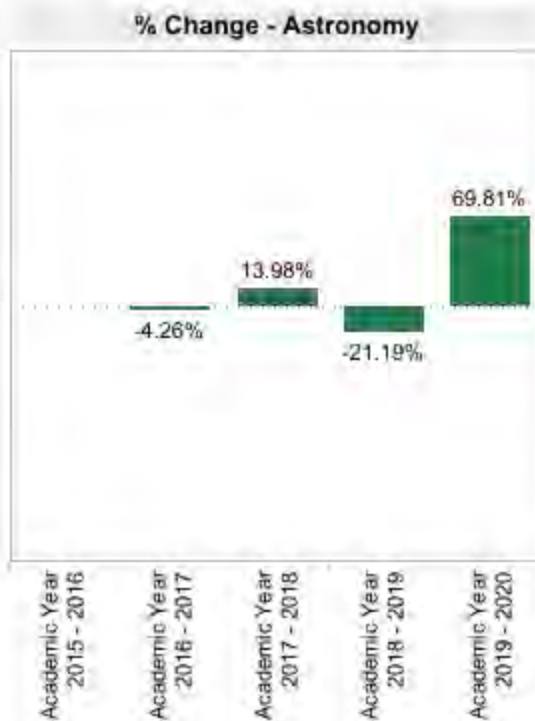
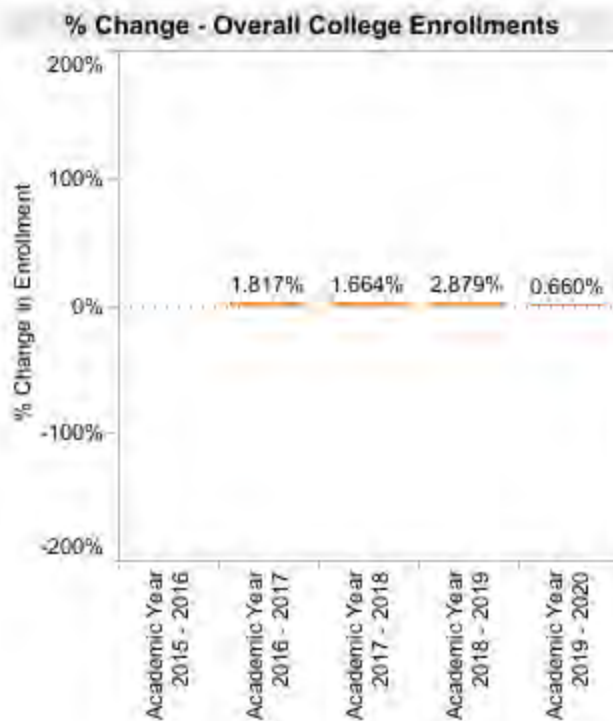
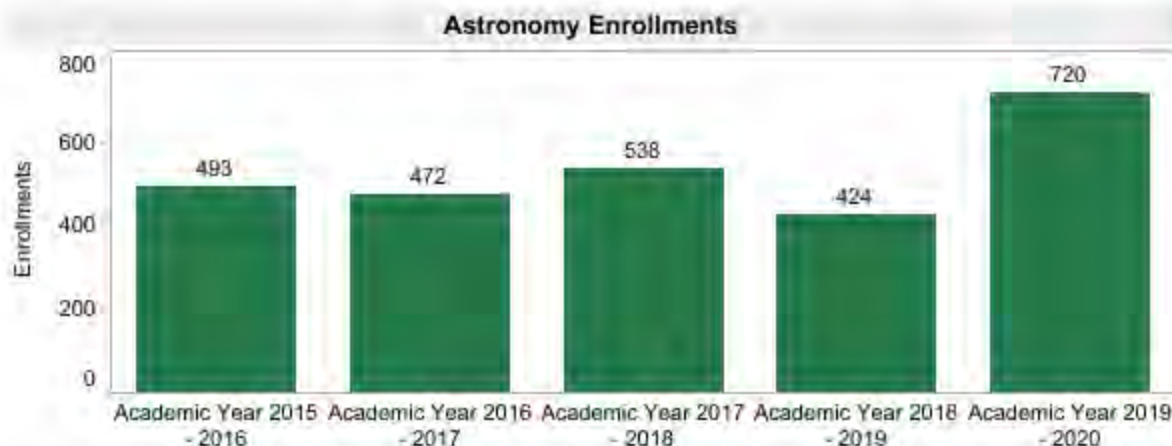
SLOCCCD Program Review Data - Enrollment

Department:
Astronomy

Course:
All

Dual Enrollment:
All

Prison:
All



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.

SLOCCCD Program Review Data - Enrollment

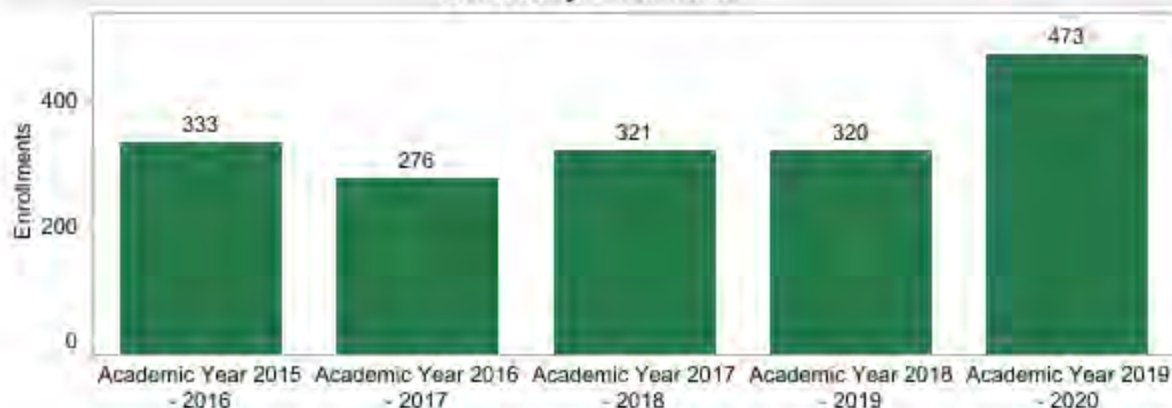
Department:
Astronomy

Course:
ASTR 210

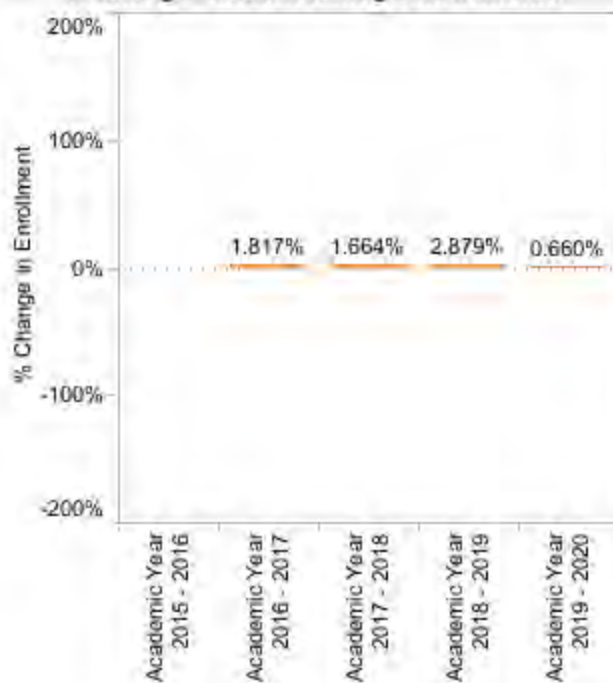
Dual Enrollment:
All

Prison:
All

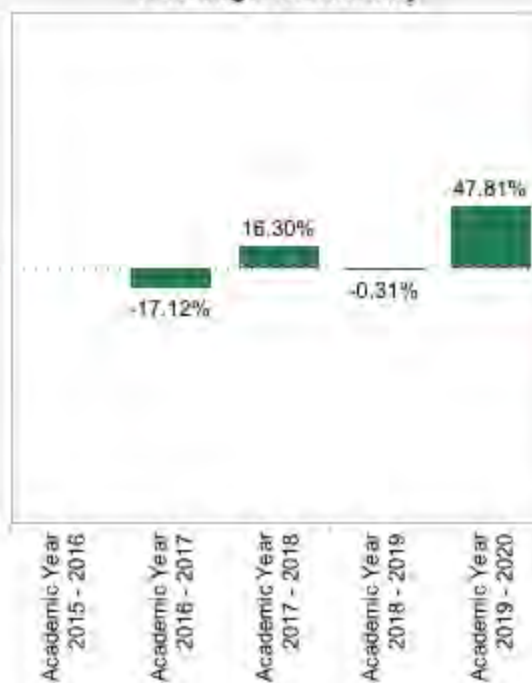
Astronomy Enrollments



% Change - Overall College Enrollments



% Change - Astronomy



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.

SLOCCCD Program Review Data - Enrollment

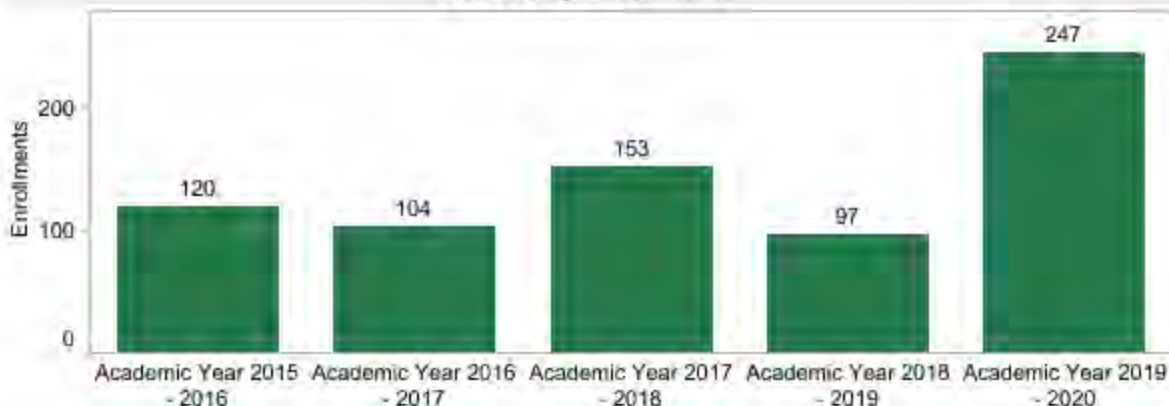
Department:
Astronomy

Course:
ASTR 210L

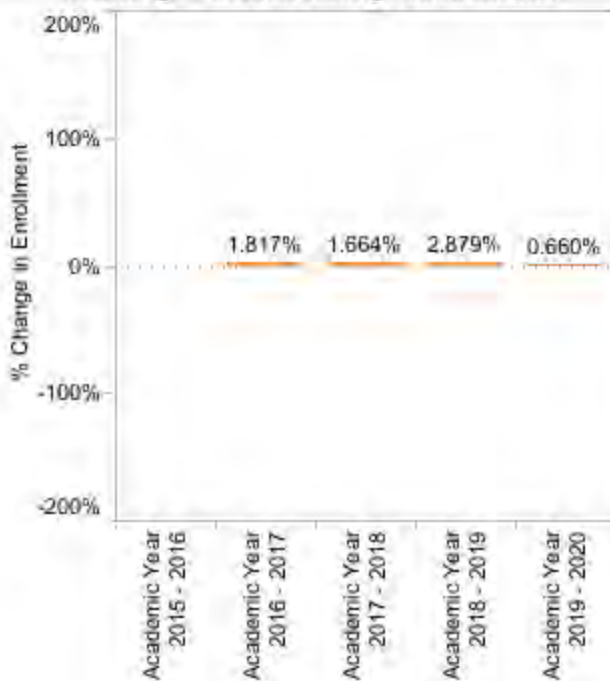
Dual Enrollment:
All

Prison:
All

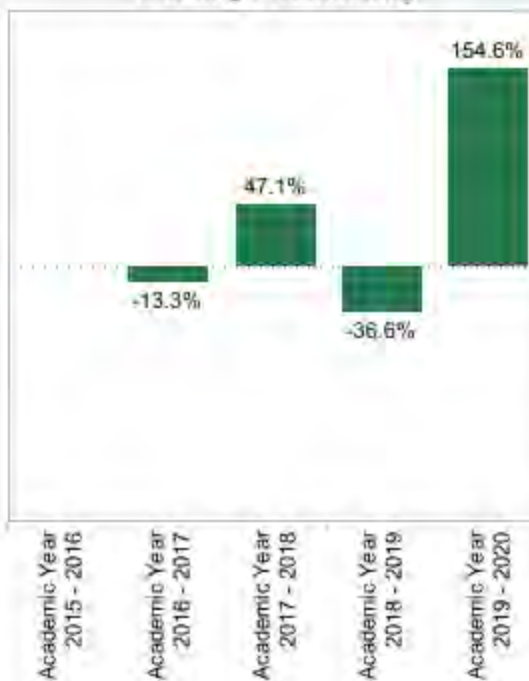
Astronomy Enrollments



% Change - Overall College Enrollments



% Change - Astronomy



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.

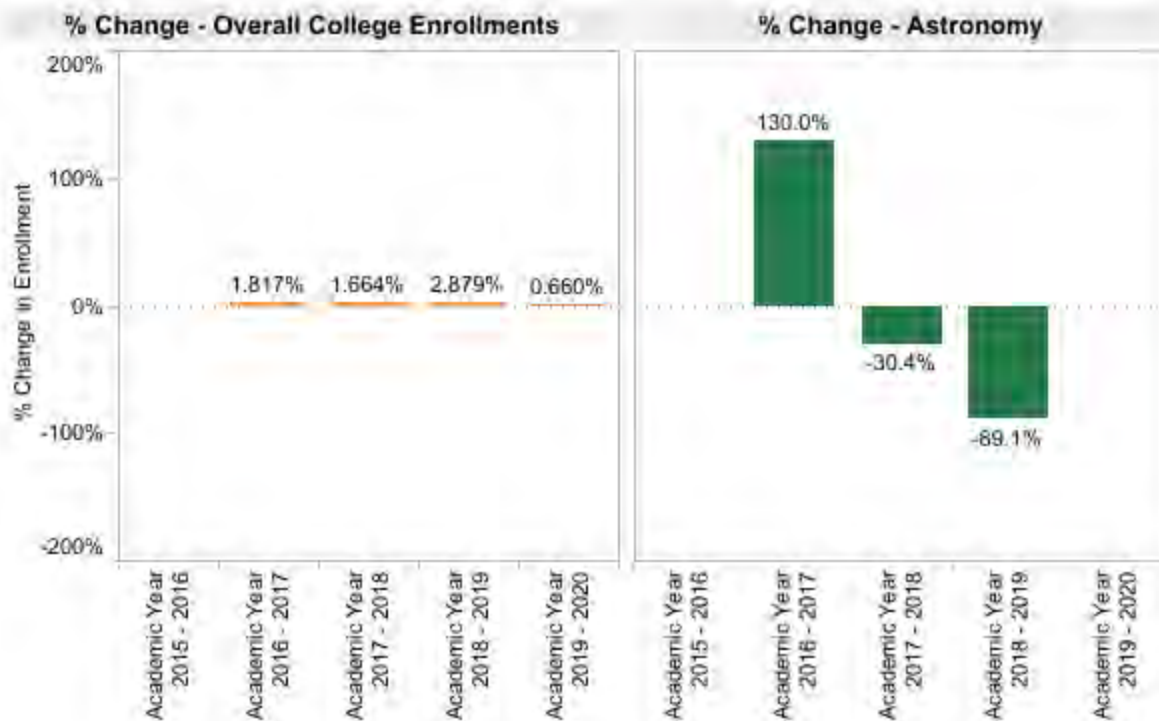
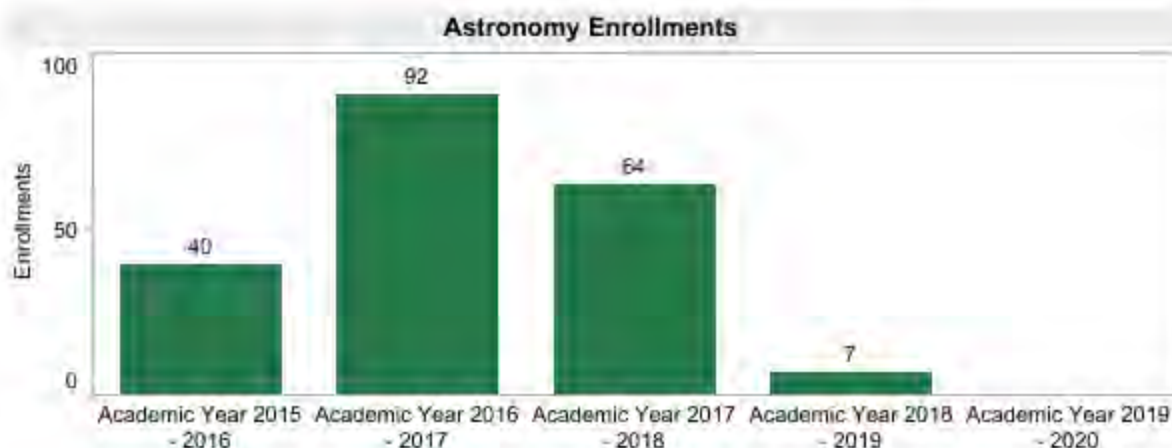
SLOCCCD Program Review Data - Enrollment

Department:
Astronomy

Course:
ASTR 299

Dual Enrollment:
All

Prison:
All

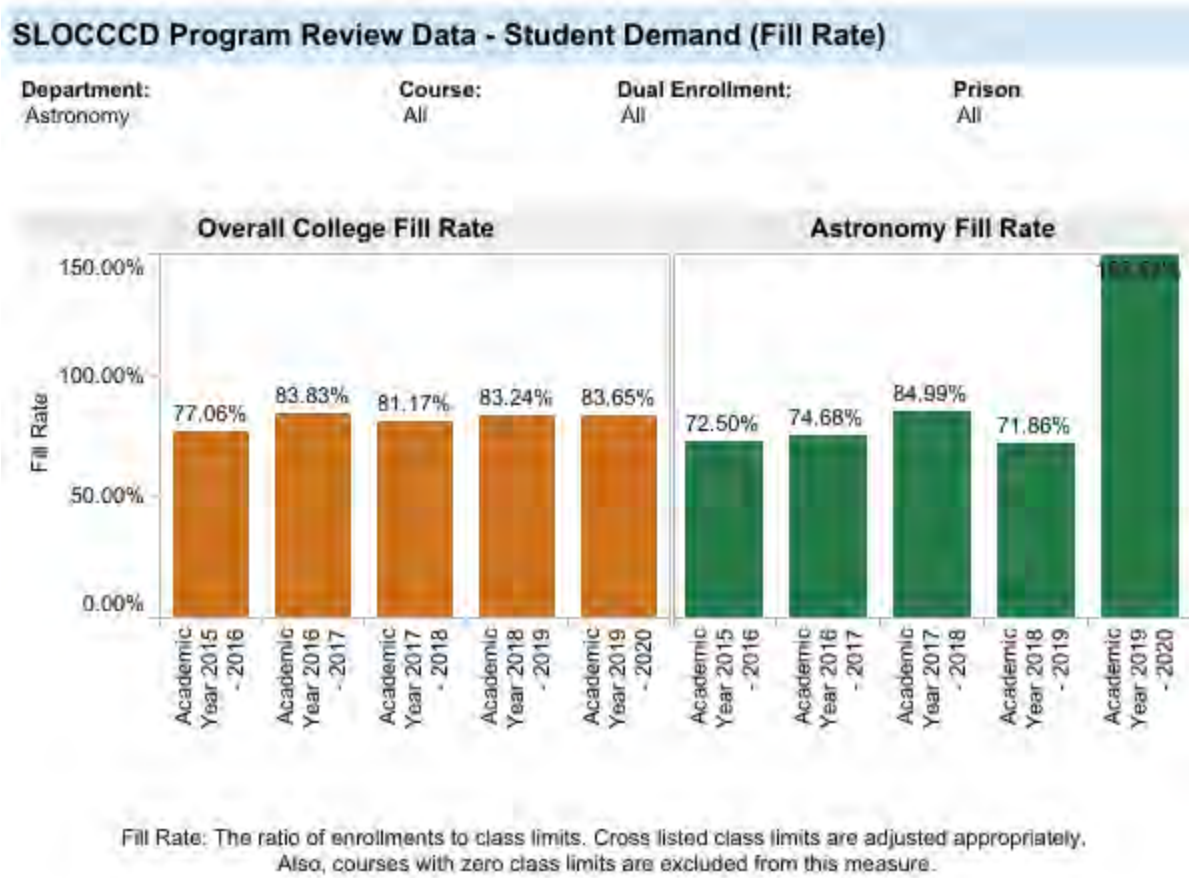


Enrollment. Duplicated count of students who completed greater than 0 units in positive attendance courses or were present on census for all other accounting methods.

Overall ASTR 210 and ASTR 210L enrollments have been relatively steady, with a notable increase in 2019-2020 for both courses compared to the college overall. In previous years, positive and negative

change fluctuations occurred in ASTR 210L enrollments due to a high degree of variability in NC campus section enrollment (which is only offered once a year, in the fall semester). The large enrollment numbers for ASTR 299 in 2016-2017 and 2017-2018 is when it was made available as a distance education course; however the steep decline in 2018-2019 and the zero enrollment in 2019-2020 is due to it no longer being offered from the lack of part-time faculty available to teach that course.

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



Overall, astronomy fill rates mirror the District’s overall fill rate, with a marked increase in fill rate (153.52%) for 2019-2020.

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

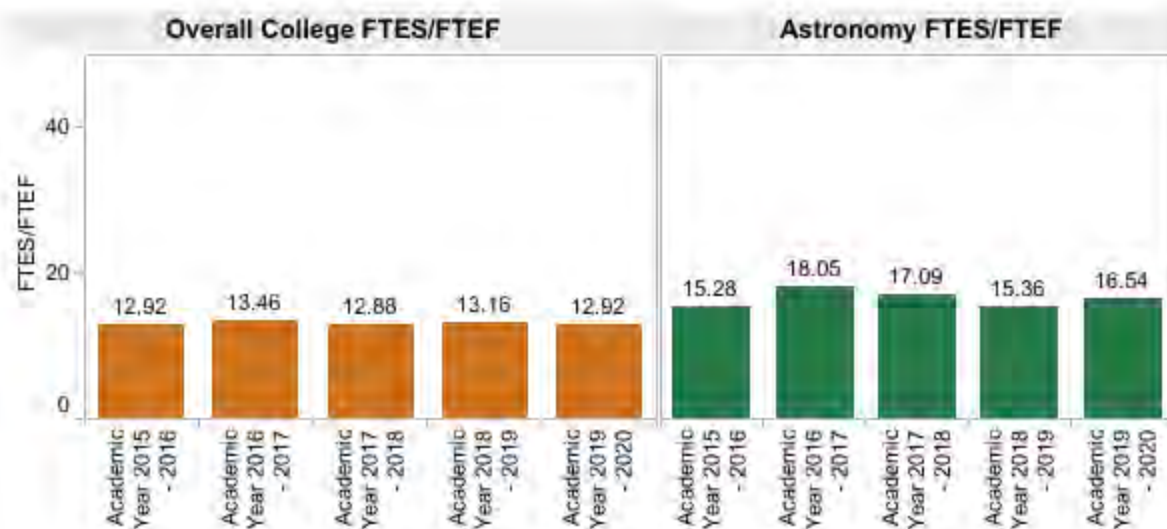
SLOCCCD Program Review Data - Efficiency (FTES/FTEF)

Department:
Astronomy

Course:
All

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)

The overall efficiency of astronomy courses is very high compared to the District efficiency over the past five-year history, due to large lectures of 45-60 students in each ASTR 210 lecture section, and many ASTR 210L lab sections being run at/or near capacity (24-28 students). [Student Success—Course Completion by Modality \(Insert Data Chart\)](#)

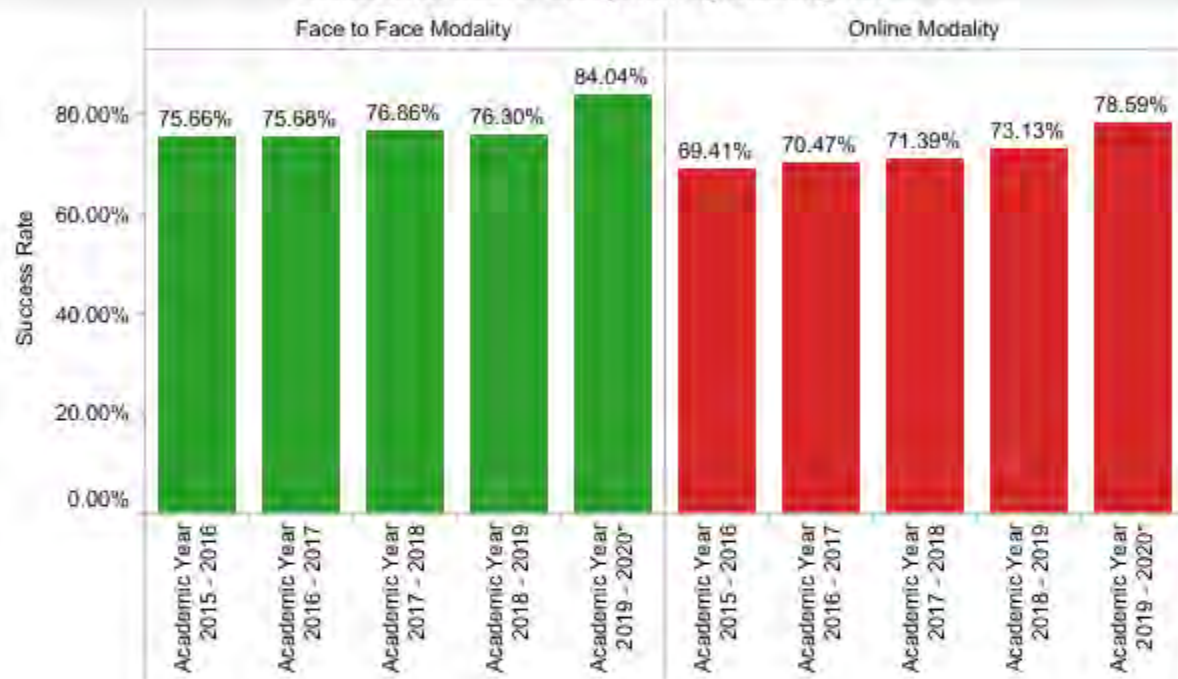
SLOCCCD Program Review Data: Successful Course Completion

Select Department:
All

Course:
All

Legend:
■ Face to Face Modality
■ Online Modality

Successful Course Completion by Modality -All



Successful Course Completion by Modality Table - All

		Academic Year 2015 - 2016	Academic Year 2016 - 2017	Academic Year 2017 - 2018	Academic Year 2018 - 2019	Academic Year 2019 - 2020*
Face to Face Modality	Department Success Rate	75.66%	75.68%	76.86%	76.30%	84.04%
	Total Department Enrollments	52,399	53,120	53,586	52,830	51,883
Online Modality	Department Success Rate	69.41%	70.47%	71.39%	73.13%	78.59%
	Total Department Enrollments	9,950	10,438	12,311	14,888	16,965

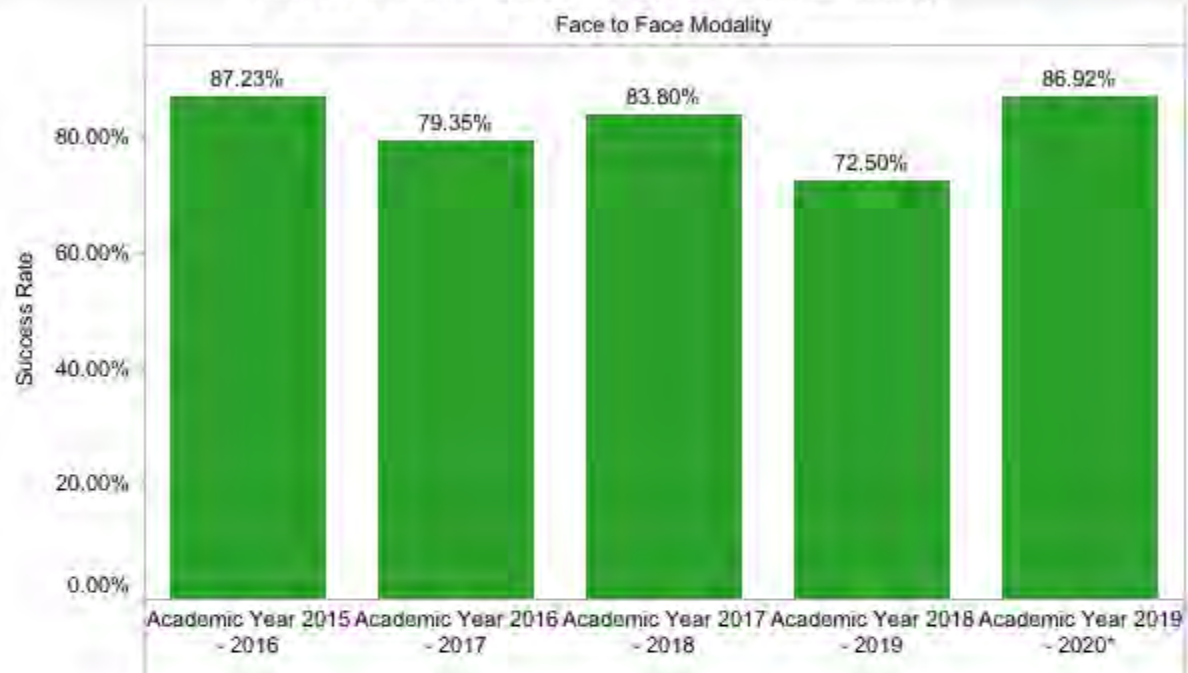
SLOCCCD Program Review Data: Successful Course Completion

Select Department:
Astronomy

Course:
ASTR210

Legend:
■ Face to Face Modality

Successful Course Completion by Modality -Astronomy



Successful Course Completion by Modality Table - Astronomy

		Academic Year 2015 - 2016	Academic Year 2016 - 2017	Academic Year 2017 - 2018	Academic Year 2018 - 2019	Academic Year 2019 - 2020*
Face to Face Modality	Department Success Rate	87.53%	80.00%	86.50%	76.50%	90.20%
	Total Department Enrollments	449.0	380.0	474.0	418.0	725.0
Online Modality	Department Success Rate	82.50%	91.30%	73.44%	71.43%	
	Total Department Enrollments	40.0	92.0	64.0	7.0	

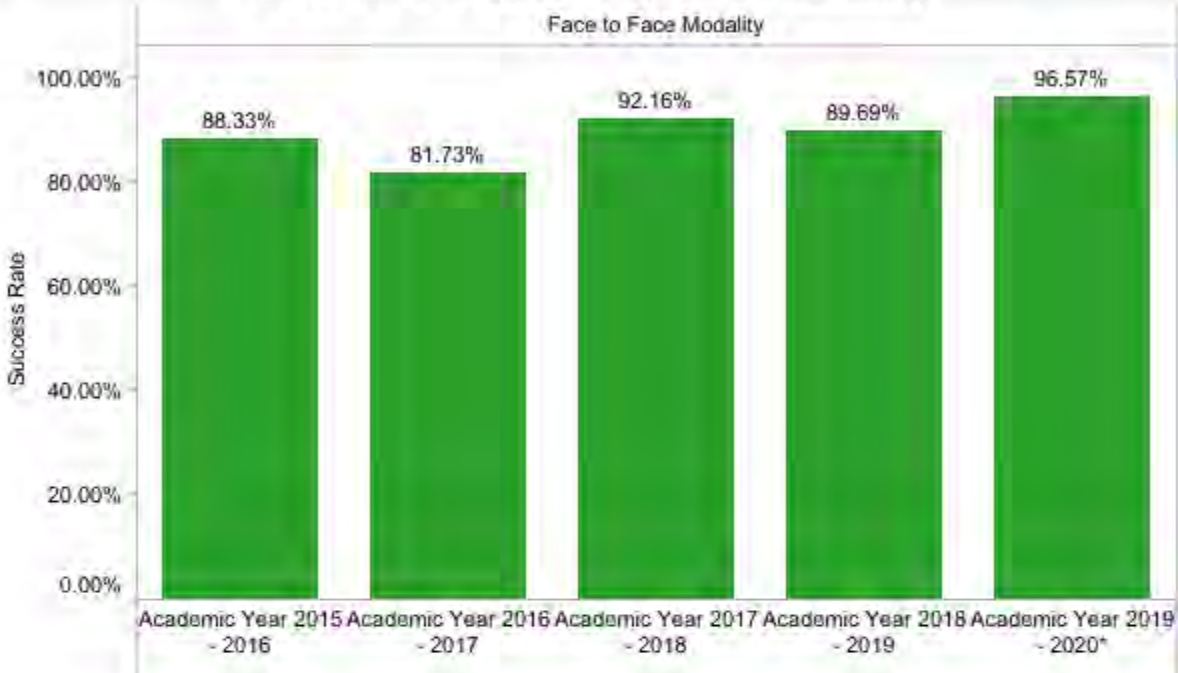
SLOCCCD Program Review Data: Successful Course Completion

Select Department:
Astronomy

Course:
ASTR210L

Legend:
■ Face to Face Modality

Successful Course Completion by Modality -Astronomy



Successful Course Completion by Modality Table - Astronomy

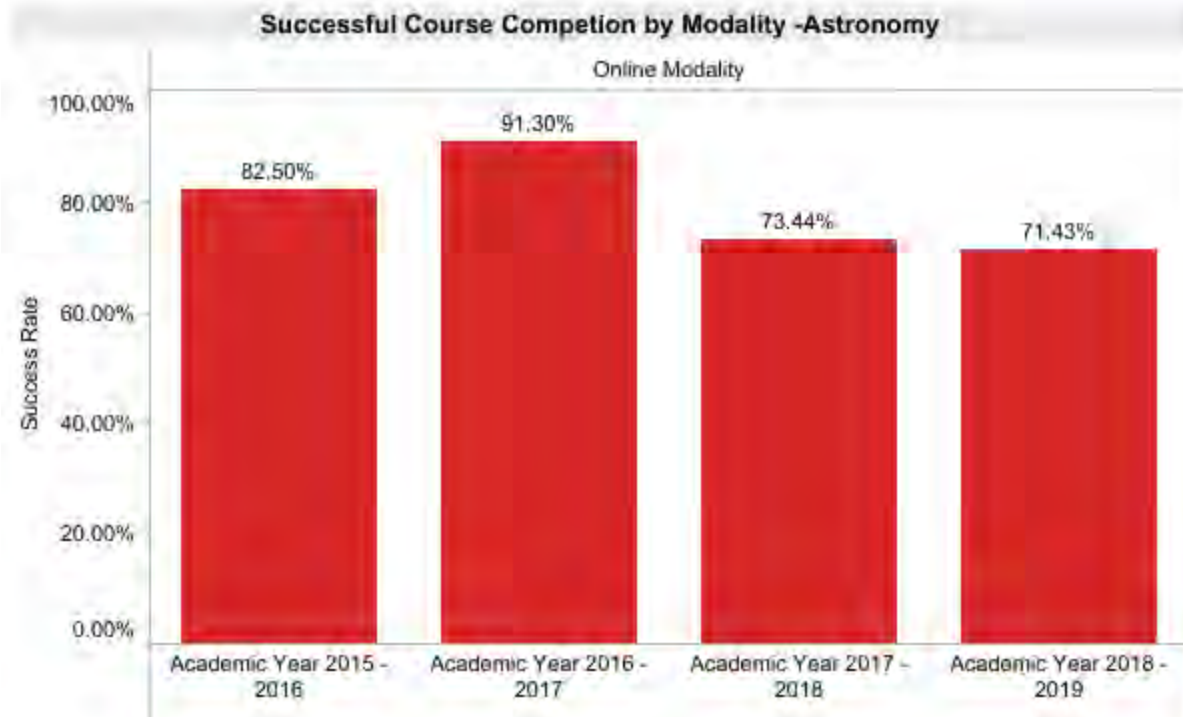
		Academic Year 2015 - 2016	Academic Year 2016 - 2017	Academic Year 2017 - 2018	Academic Year 2018 - 2019	Academic Year 2019 - 2020*
Face to Face Modality	Department Success Rate	87.53%	80.00%	86.50%	76.50%	90.20%
	Total Department Enrollments	449.0	380.0	474.0	418.0	725.0
Online Modality	Department Success Rate	82.50%	91.30%	73.44%	71.43%	
	Total Department Enrollments	40.0	92.0	64.0	7.0	

SLOCCCD Program Review Data: Successful Course Completion

Select Department:
Astronomy

Course:
ASTR299

Legend:
■ Online Modality



Successful Course Completion by Modality Table - Astronomy

		Academic Year 2015 - 2016	Academic Year 2016 - 2017	Academic Year 2017 - 2018	Academic Year 2018 - 2019	Academic Year 2019 - 2020*
Face to Face Modality	Department Success Rate	87.53%	80.00%	86.50%	76.50%	90.20%
	Total Department Enrollments	449.0	380.0	474.0	418.0	725.0
Online Modality	Department Success Rate	82.50%	91.30%	73.44%	71.43%	
	Total Department Enrollments	40.0	92.0	64.0	7.0	

Compared to the college as a whole, all astronomy courses have comparable successful course completion rates. ASTR 210 and ASTR 210L are only offered in the face-to-face (the only exception being the second half of the spring 2020 semester), while ASTR 299 was only offered as a distance-learning course (starting in 2014-2015, and ending in 2018-2019), so there is no modality comparison within courses.

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

(Not applicable; Cuesta College has no degree/certificate programs for astronomy.)

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

SLOCCCD Program Review Data: Successful Course Completion

Select Department:
Astronomy

TERM_ID
All

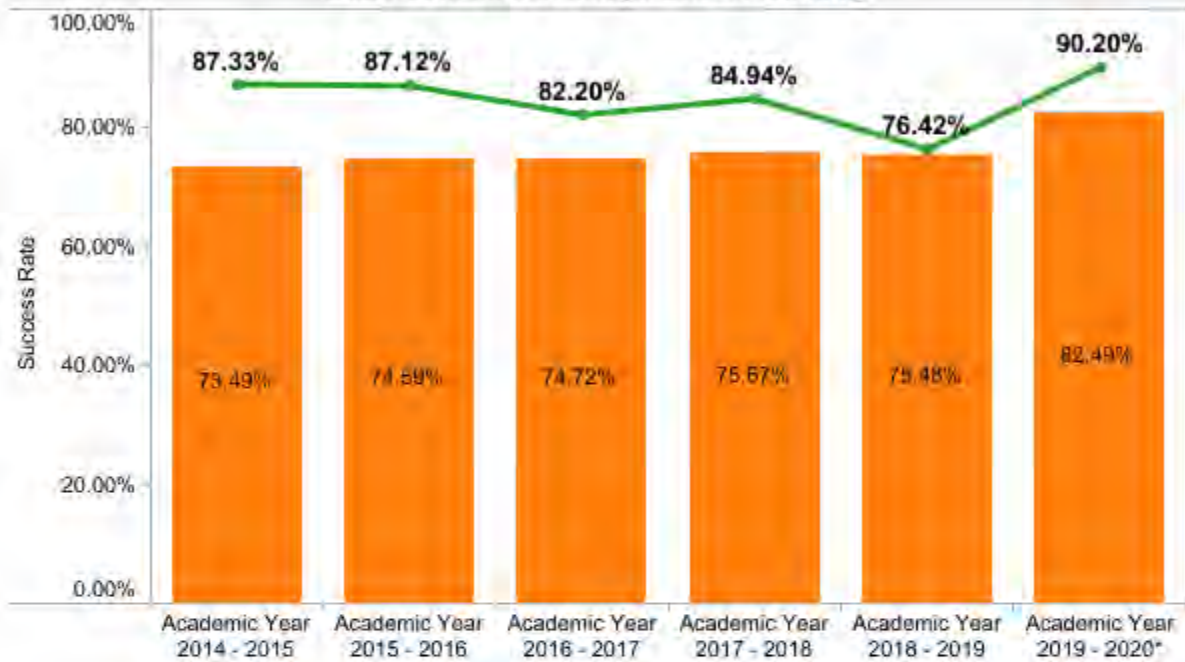
Measure Names

Department Success Rate

Overall College Success Rate

COURSE
All

Successful Course Completion - Astronomy



Astronomy Success Rate Table

	Academic Year 2015 - 2016	Academic Year 2016 - 2017	Academic Year 2017 - 2018	Academic Year 2018 - 2019	Academic Year 2019 - 2020*
Department Success..	87.12%	82.20%	84.94%	76.42%	90.20%
Total Enrollments	489	472	538	425	725

Success: The Percentage of student enrollments resulting in a final grade of "C" or better

The student success rate in astronomy courses is higher than the college-wide rate.

Disaggregated Student Success

For both astronomy and all other Physical Sciences Division classes, there is a comparable slightly lower completion rate for DSPS students vs. non-DSPS ASTR students. However, the completion rate of both DSPS and non-DSPS ASTR students is slightly higher than other Physics Sciences Division classes.

Astronomy: 2014-2015 through 2019-2020

DSPS: 110 students (3.46% of overall), success rate = 81.48%

Not DSPS: 3,070 students (96.54% of overall), success rate = 85.40%

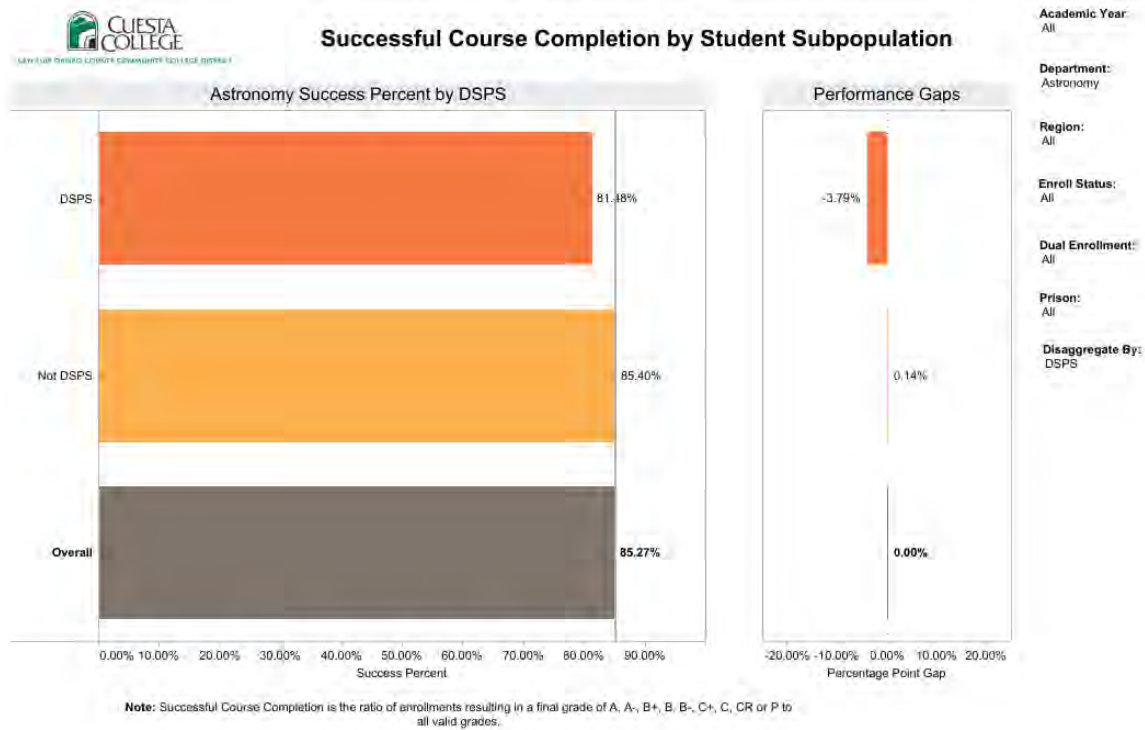
Overall: 3,180 students

Chemistry, Geology, Meteorology, Oceanography, Physical Sciences, Physics: 2014-2015 through 2019-2020

DSPS: 849 students (5.78% of overall), success rate = 73.52%

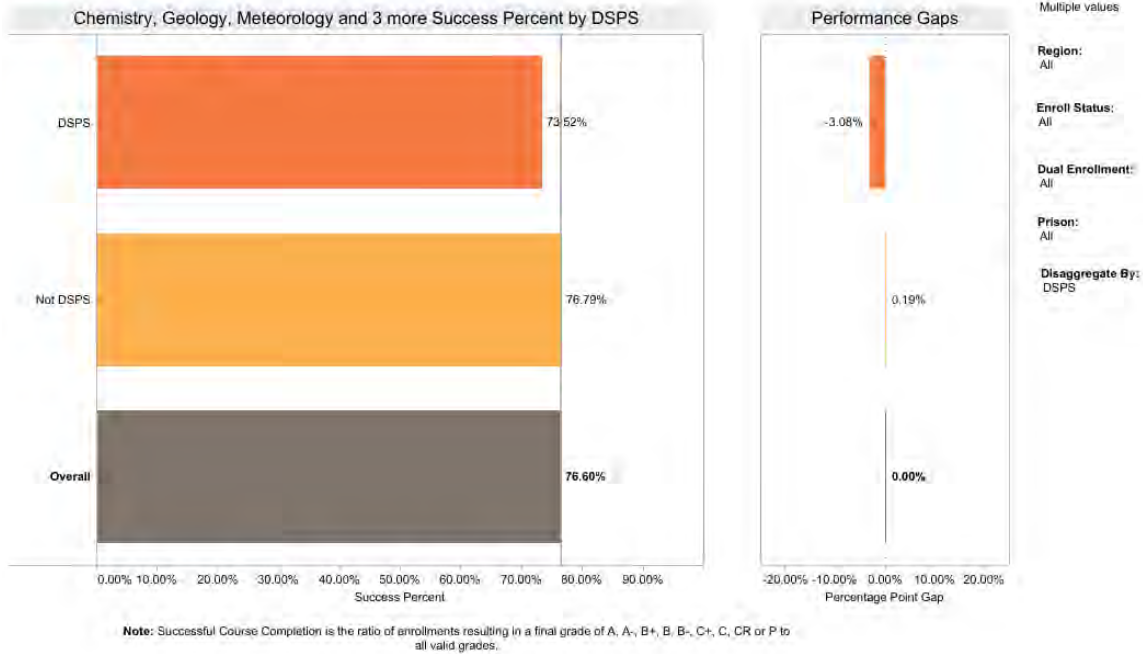
Not DSPS: 13,847 students (94.22% of overall), success rate = 76.79%

Overall: 14,696 students





Successful Course Completion by Student Subpopulation



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.

(N/A)

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. Note that Astronomy is not a program; it is currently only two courses: ASTR 210 and ASTR 210L.)

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.*

D. Facilities Changes

During construction of the Student Services Building on the North County Campus, electricity and safe pedestrian access to the telescope shelter at the north side of campus was lost; ongoing efforts should be made to restore power and safe access, if funding is provided. In the meanwhile it is recommended that no public events be held at night at the telescope shelter, due to these safety concerns. If providing hard-wired electrification is not feasible, a portable battery power source and a transfer switch, with additional indoor and outdoor lighting should be installed in order for the telescope shelter to return to full functionality.

The 14" Meade reflector at the Bowen Observatory on top of the 2401/2402 science forum building is now 14 years old, and should be refurbished and realigned. There does not seem to be any local technician available to perform these tasks, so Cuesta faculty and/or volunteer members from the Central Coast Astronomical Society may need to be trained in order to do so. A technical assistant could be used to set up, run, and shut down the telescope during instructional time, such that students can view objects through the telescope during lecture, and to free up the instructor from preparing and running the telescope during lecture. A continuing problem is that the mechanism for opening and closing the slit doors for the dome continue to deteriorate, and this require constant repairs when parts fail.

If funding is provided, the addition of a second digital projector in the N2401 classroom would enable viewing of multiple screens of instruction, as is done in every other classroom where ASTR 210 and 210L has been or is currently offered (2609, 2401, 2402, 2101, 2105, 2108, N2409, N2439).

If funding is provided, the opening of a doorway between the chemistry and physics/astronomy labs in the N2400 building would facilitate direct access to cross-disciplinary equipment during labs.

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.