

## 2022 INSTRUCTIONAL ANNUAL PROGRAM PLANNING WORKSHEET

CURRENT YEAR: 2021-2022 PROGRAM: COMPUTER INFORMATION SYSTEMS

CLUSTER: WED/HAWK LAST YEAR CPPR COMPLETED: 2020

NEXT SCHEDULED CPPR: 2024 CURRENT DATE: 2/1/2021

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:

A.S. Computer Science, A.S. Management Information Systems, C.S. Android Developer, C.S. iOS Developer, C.S. Internet Applications Developer

### 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

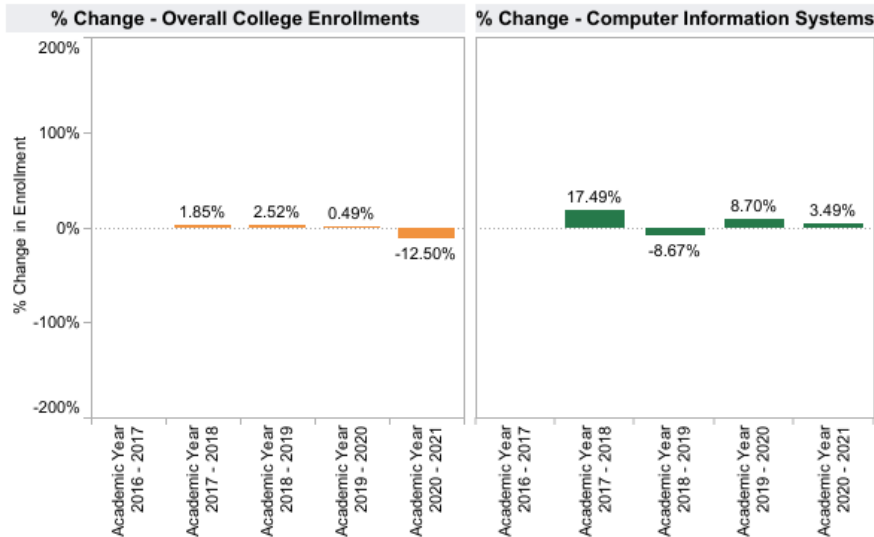
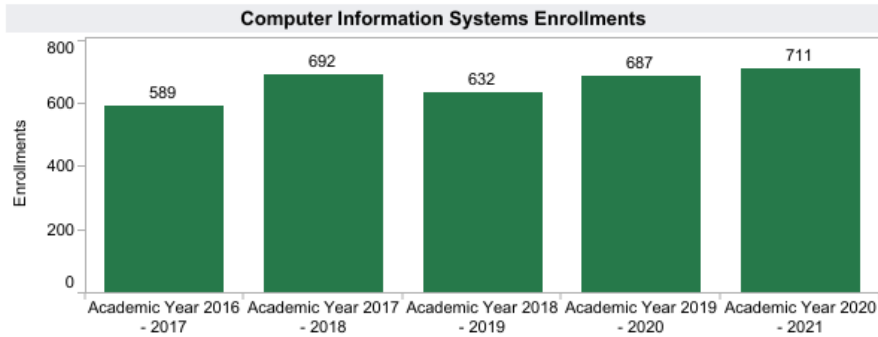
Your responses to the prompts for the data elements below should be for the entire program. If this APPW is for multiple degrees and/or certificates, then you MAY want to comment on each degree and/or certificate or discuss them holistically for the entire program being sure to highlight relevant trends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

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

#### SLOCCCD Program Review Data - Enrollment

**Department:** Computer Information Systems    **Course:** Multiple values    **Dual Enrollment:** Not Dual Enrollment    **Prison:** All

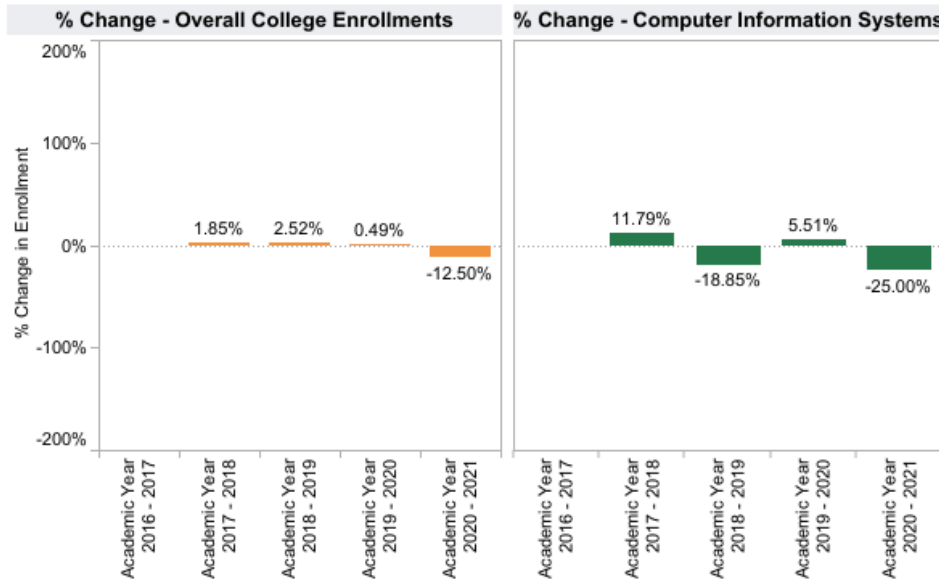
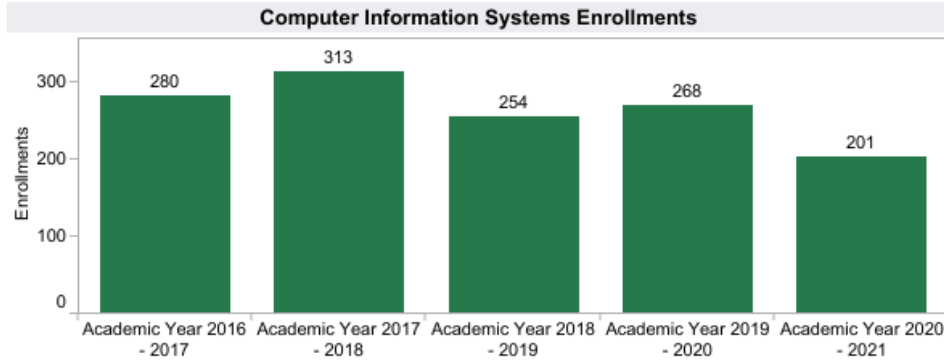


Enrollment: Duplicated count of students who completed greater than 0 units in positive attendance courses or were present on census for all other accounting methods.

The chart above shows the enrollment for the programming courses (which excludes CIS 154, 173, 210, and CIS 216 which is shown separately below. We see that the enrollment has increased since 2019-2020, which is higher than the college average of a decline of 12.5%.

### SLOCCCD Program Review Data - Enrollment

**Department:** Computer Information Systems    **Course:** Multiple values    **Dual Enrollment:** Not Dual Enrollment    **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.

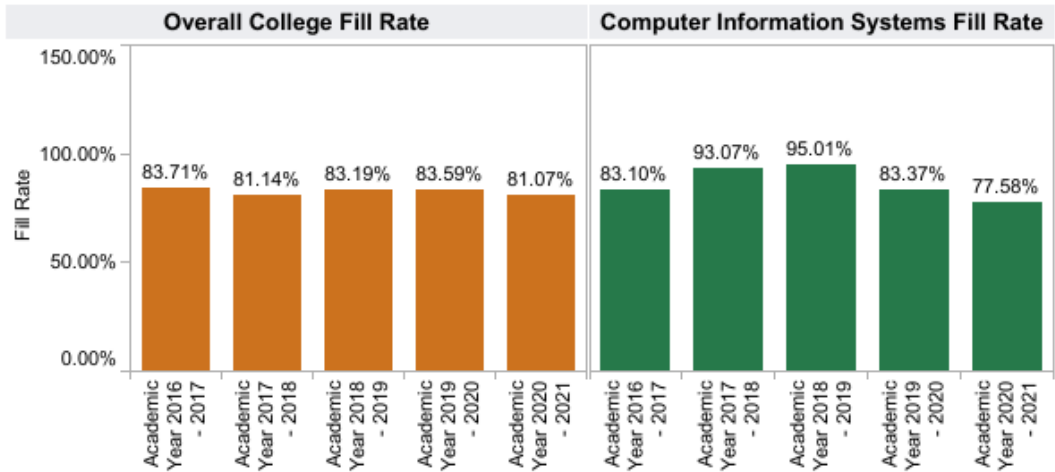
The above chart shows the enrollment for the application courses: CIS 154, 173, 210, and 216. These courses have seen a decrease in enrollment double that of the decline in enrollment across the college. Only one course, CIS 210 has more than one section offered at a time. Currently all CIS 210 are offered online, we may need to consider this modality in light of the enrollment decline. It has also suffered decline as the CSU's have dropped the technology requirement.

[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:** Computer Information Systems      **Course:** Multiple values      **Dual Enrollment:** All      **Prison:** All

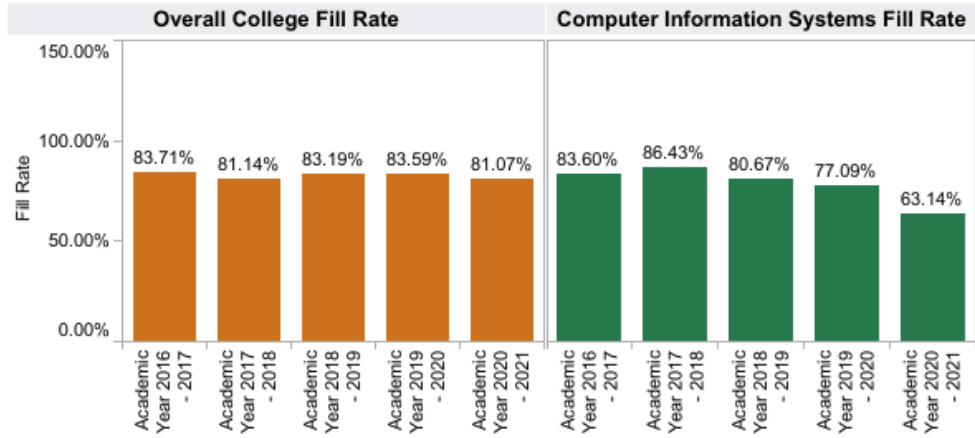


Fill Rate: The ratio of enrollments to class limits. Cross listed class limits are adjusted appropriately. Also, courses with zero class limits are excluded from this measure.

The above graph shows a decline in the fill rate for CIS programming courses. The fill rate for 2020-2021 was lower than it has been in the past 5 years, at 77.58%, and lower than the college average fill rate for the first time in the past four years. This is a concerning data point, and we will continue to monitor this and consider possible causes and remedies for the next academic year.

**SLOCCCD Program Review Data - Student Demand (Fill Rate)**

**Department:** Computer Information Systems      **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.

The above graph shows the Fill rate for CIS application courses: CIS 154, 173, 210, 216. The fill rate continues to decline for these courses, despite reduction in offerings of these courses and having a variety of course lengths. We could only conjecture what could be the cause of the precipitous drop in fill rates for these courses, but it could be that students do not want to take computer application courses online.

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

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

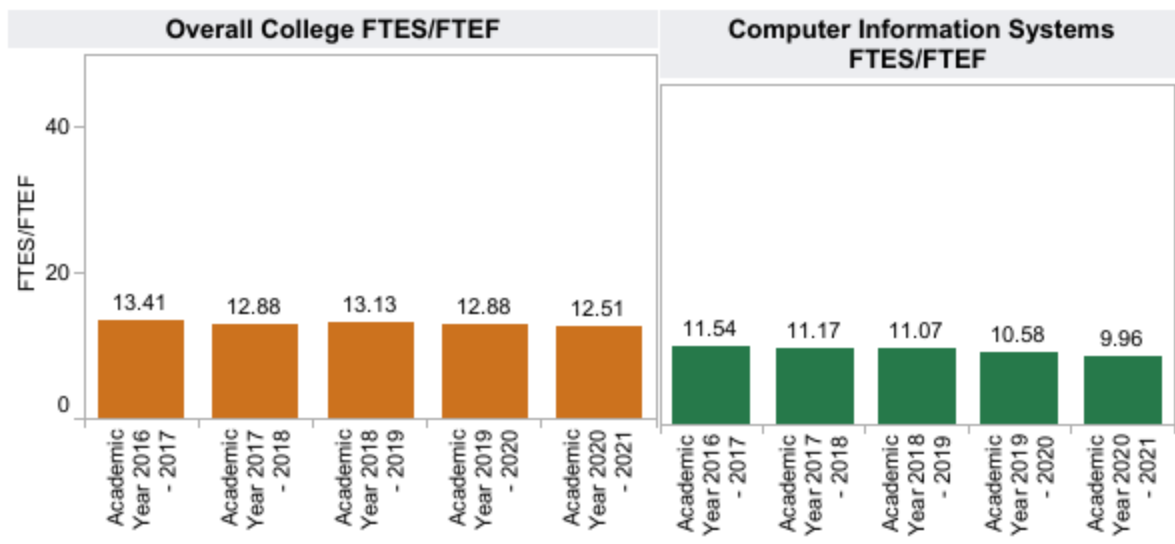
## SLOCCCD Program Review Data - Efficiency (FTES/FTEF)

**Department:**  
Computer Information Systems

**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)

The above graph shows the efficiency for CIS programming courses which was 9.96 for academic year (AY) 2020-2021, which is the lowest that it has been in the past 5 years. One reason for this is that programming courses have a course cap of 30 due to the nature of programming assignments. Combined with lower fill rates in the past year, this has meant declining efficiency.

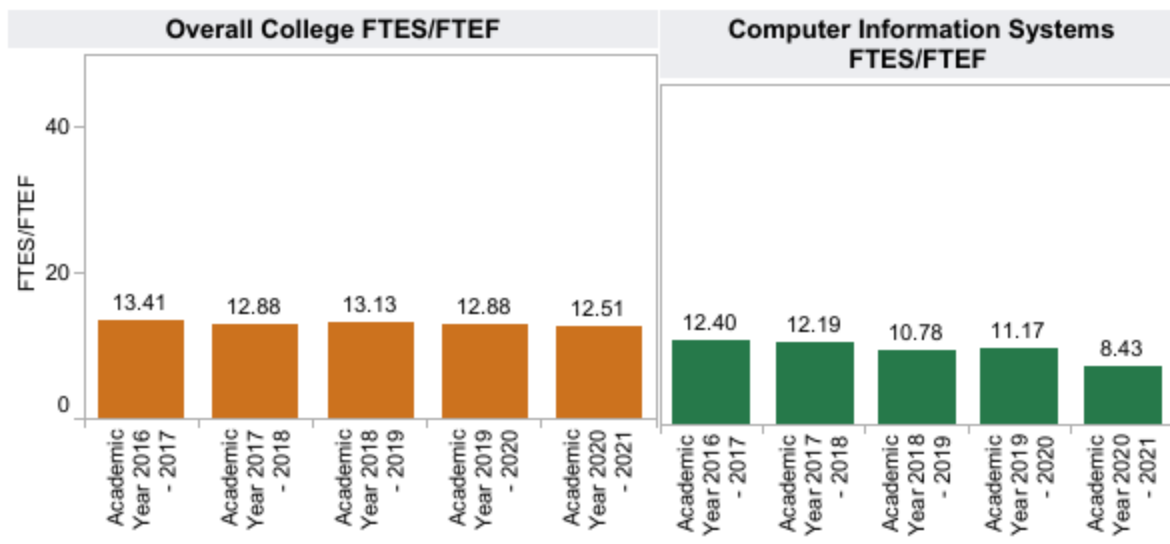
## SLOCCCD Program Review Data - Efficiency (FTES/FTEF)

**Department:**  
Computer Information Systems

**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)

The above graph shows the efficiency numbers for CIS application courses, which was 8.43, which mimics the drop exhibited in enrollments and fill rates shown earlier.

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

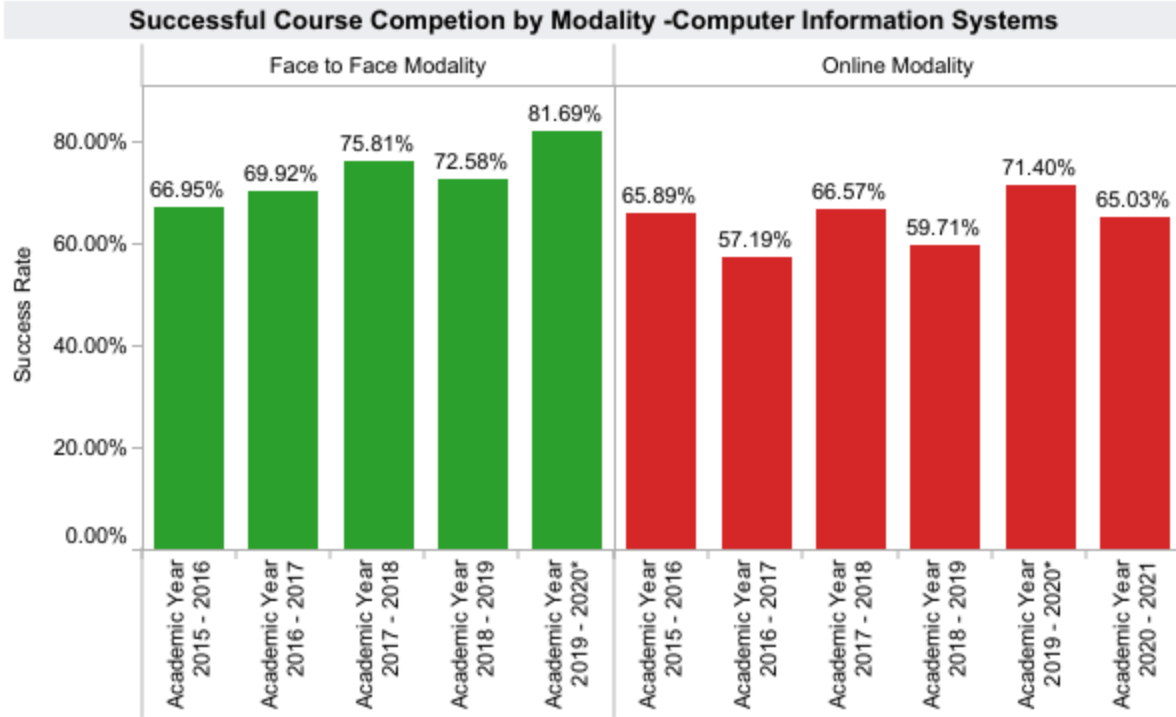
Insert the data chart and explain observed differences between the program and the college.

## SLOCCCD Program Review Data: Successful Course Completion

Select Department:  
Computer Information Systems

Course:  
All

Legend:  
■ Face to Face Modality  
■ Online Modality



**Successful Course Completion by Modality Table - Computer Information Systems**

		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	66.95%	69.92%	75.81%	72.58%	81.69%	
	Total Department Enrollm..	717.0	665.0	740.0	723.0	509.0	
Online Modality	Department Success Rate	65.89%	57.19%	66.57%	59.71%	71.40%	65.03%
	Total Department Enrollm..	302.0	278.0	359.0	278.0	538.0	971.0

There were no face-to-face offerings in CIS during the 2020-2021 academic year as a response to the on-going public health concern related to COVID-19, so this data shows the success rate relative to other years, and disturbingly the success rate for online courses dropped compared to 2019-2020. However, 2019-2020 is also “the year of the EW” and success rates for 201-2020 so not represent typical results, as students had more time to drop the course, and could drop the course even after completion, due to the abrupt change from any in-person to online courses during the Spring 2020 semester (which is why the asterisk exists on that data).



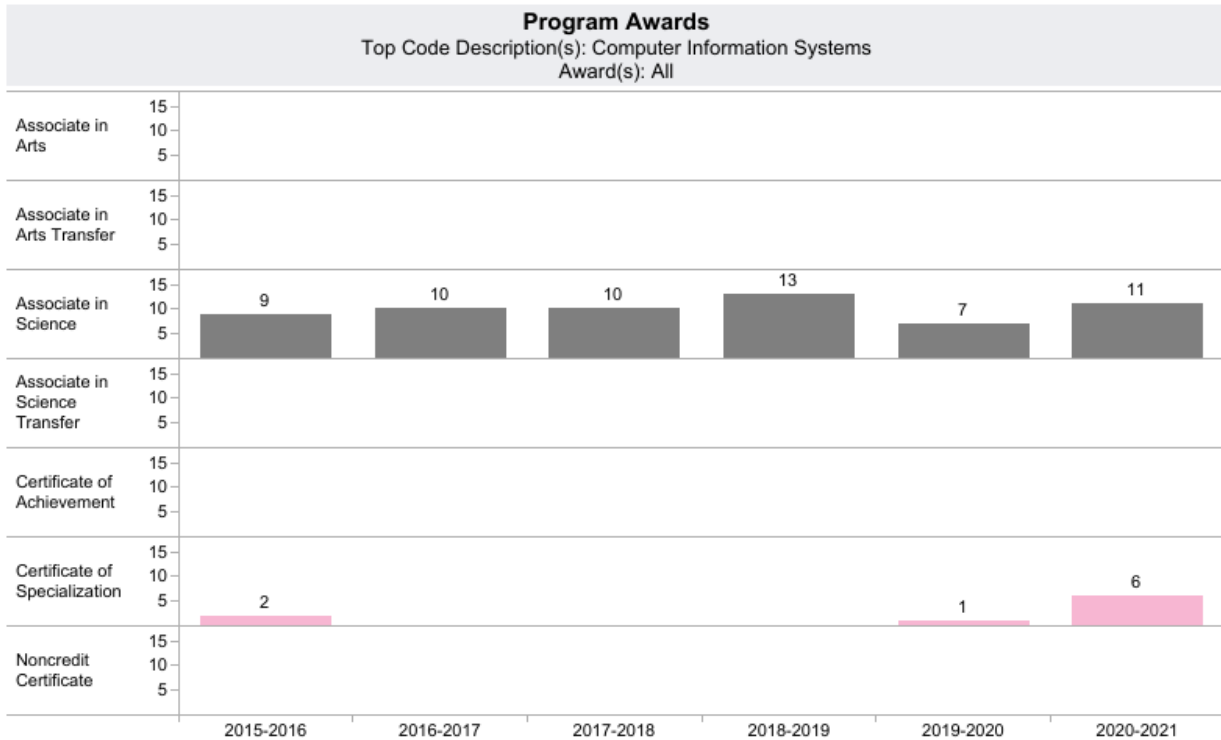
[Degrees and Certificates Awarded \(Insert Data Chart\)](#)

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

**SLOCCCD Program Review Data: Degrees and Certificates Awarded**

**Program:**  
Computer Information Systems

**Award Type:**  
All



**Program Awards Table**

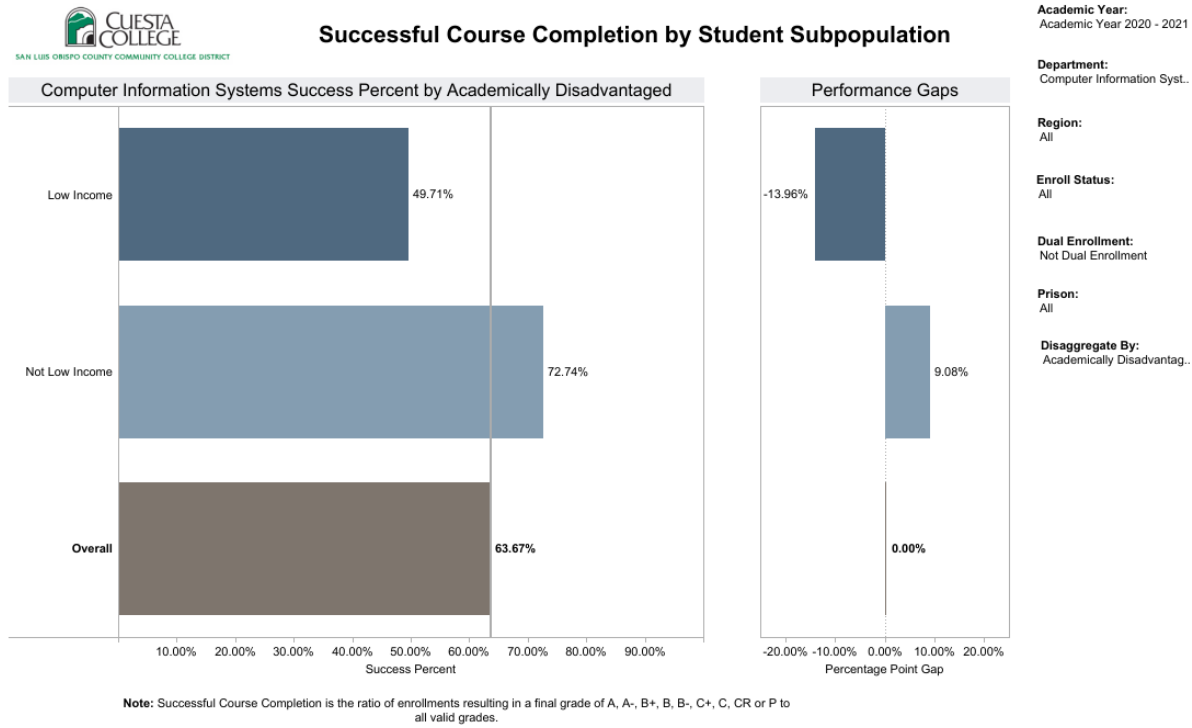
Award Type	Award	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
Associate in Science	Computer Science (AS)	9	10	10	13	7	11
	<b>Total</b>	9	10	10	13	7	11
Certificate of Specialization	Android Developer (CS)	2	0	0	0	1	6
	<b>Total</b>	2	0	0	0	1	6
<b>Grand Total</b>		11	10	10	13	8	17

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

The Android Developer certificate saw a 600% increase (from 1 to 6) completions during 2020-2021. Eleven Computer Science Associate’s degrees were awarded in 2020-2021, in line with past year’s completion metrics.

[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.



The graph above shows a significant difference in successful course completion between Low Income (49.71%) and Now Low Income (72.74%) for gap of 23.03% between the two groups. One reason why Low Income may be so significant is the nature of the courses, students who grow up with computers in the household are likely to be more successful, and this is a difficult hurdle to overcome. However, this data warrants further discussion and consideration within the department.

**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.

None.

## 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.*

### 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, changes are being made only to respond to enrollment changes, fill rates and efficiencc metrics noted in the annual review document due to the pandemic.

The computer lab in 3413 is in the process of being updated with new iMac computers (slowly due to suply chain issues).

## 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.