2021 INSTRUCTIONAL ANNUAL PROGRAM PLANNING WORKSHEET

CURRENT YEAR: 2020 -2021 **PROGRAM: ELECTRONIC & ELECTRICAL TECHNOLOGY (EET)**
CLUSTER: WORKFORCE DEVELOPMENT **LAST YEAR CPPR COMPLETED: 2017 - 2018**
NEXT SCHEDULED CPPR: 2021 - 2022 **CURRENT DATE: 2/24/2021**

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. Electrical Technology, C.A. Electronics and State Electrician, and C.S. Power and Instrumentation, C.S. Nuclear Energy Systems.

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)

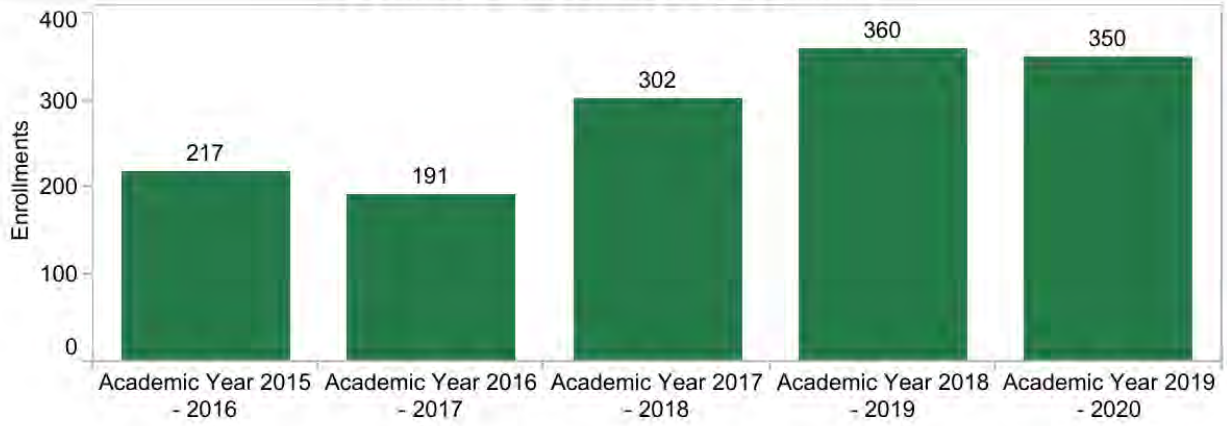
Insert the data chart and explain observed differences between the program and the college.

The EET Department has experienced an 11.98% internal decrease in overall enrollments during 2016 – 2017. During 2017 – 2018 overall enrollments in the EET Department were up by 58.12% compared to an overall college enrollment increase of 1.664%. During the 2019-2020 academic year Our fill rate decreased by 2.78%. We primarily attribute EET enrollments to increased demand for state Electrician Trainees and various marketing outreach efforts in light of the COVID-19 pandemic . Enrollment graphics are displayed on the following page.

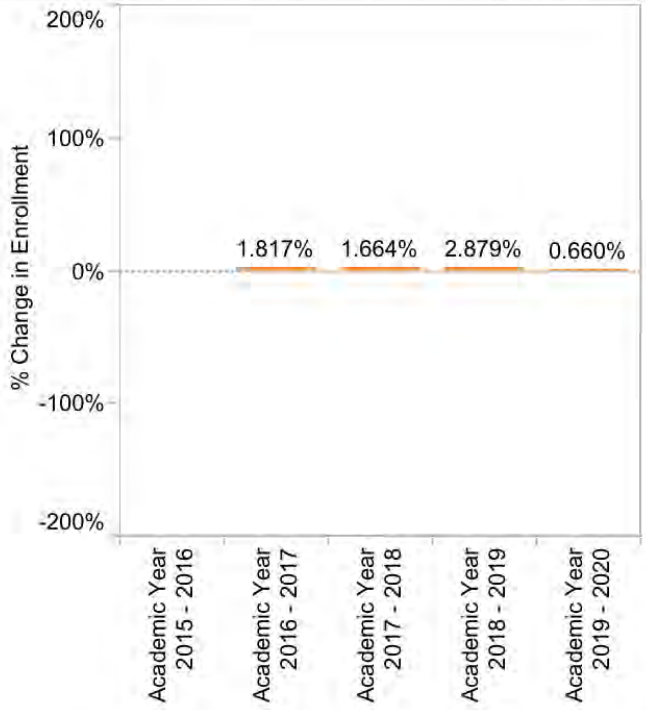
SLOCCCD Program Review Data - Enrollment

Department:	Course:	Dual Enrollment:	Prison:
Electronics & Electrical Tech	All	Not Dual Enrollment	All

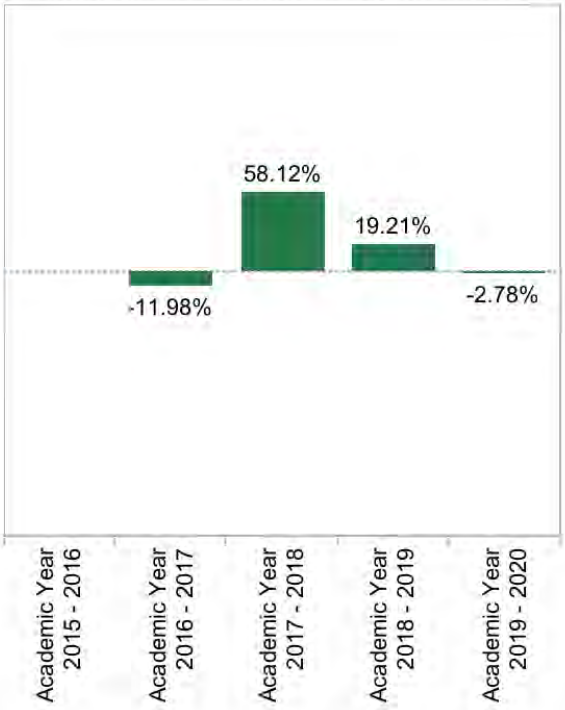
Electronics & Electrical Tech Enrollments



% Change - Overall College Enrollments



% Change - Electronics & Electrical Tech



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)

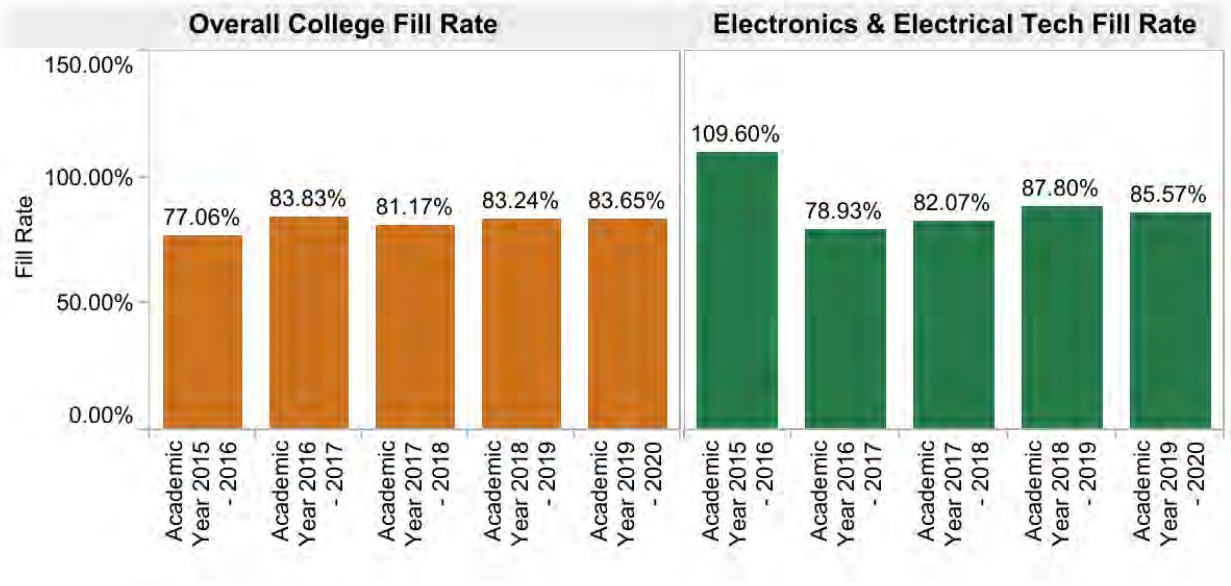
Insert the data chart and explain observed differences between the program and the college.

Comparison of general student demand (fill rate) between the EET department and the college

has seen its only major variant during the 2015 – 2016 academic year. From 2017 thru 2020 the EET department has maintained fill rates above the overall college. We attribute this partially to some course re-sequencing aimed at increasing awarded A.S. degrees and certificates. . Student Demand (Fill Rate) graphics are displayed on the following page.

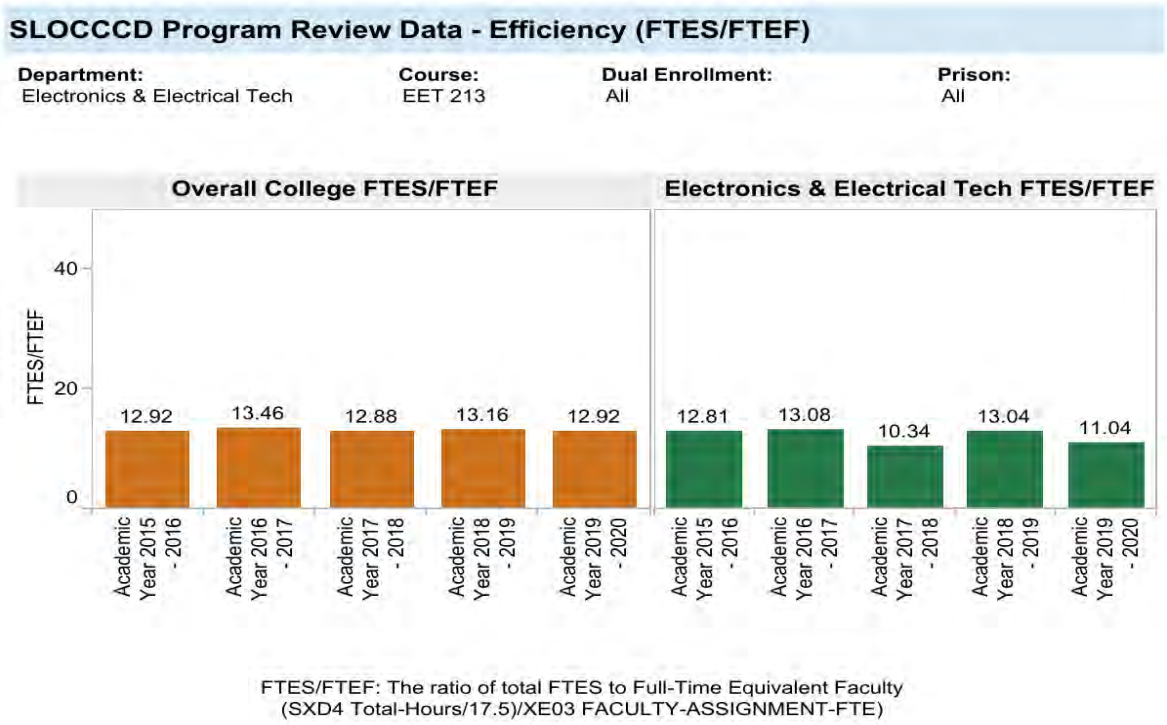
SLOCCCD Program Review Data - Student Demand (Fill Rate)

Department:	Course:	Dual Enrollment:	Prison
Electronics & Electrical Tech	All	Not Dual Enrollment	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.

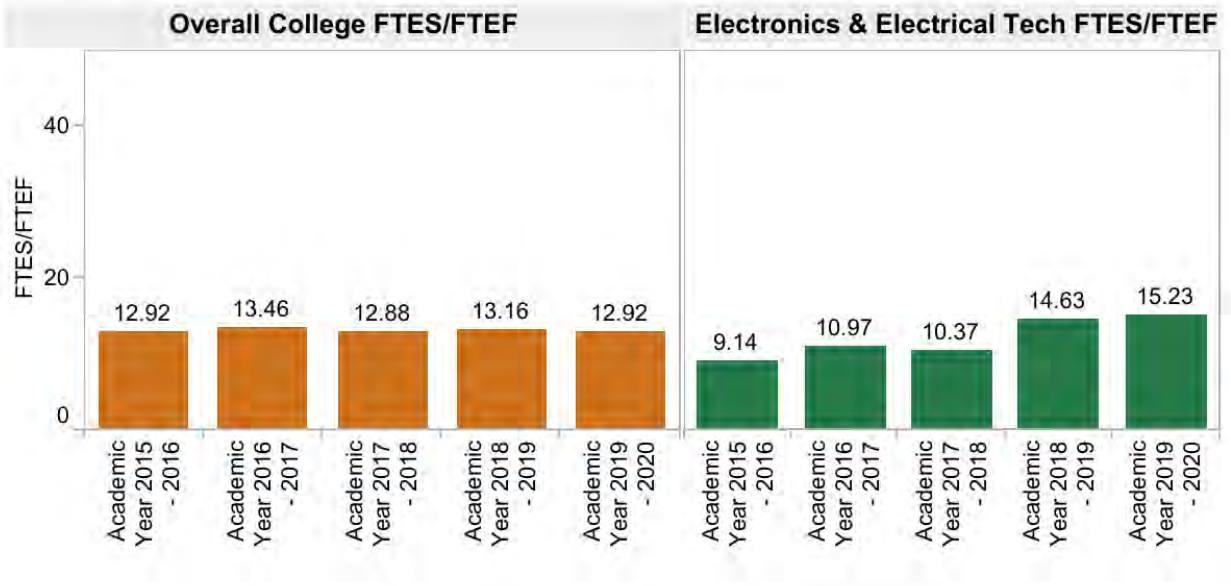
General Efficiency (FTES/FTEF) (Insert Aggregated Data Chart)



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

SLOCCCD Program Review Data - Efficiency (FTES/FTEF)

Department:	Course:	Dual Enrollment:	Prison:
Electronics & Electrical Tech	EET 224	All	All



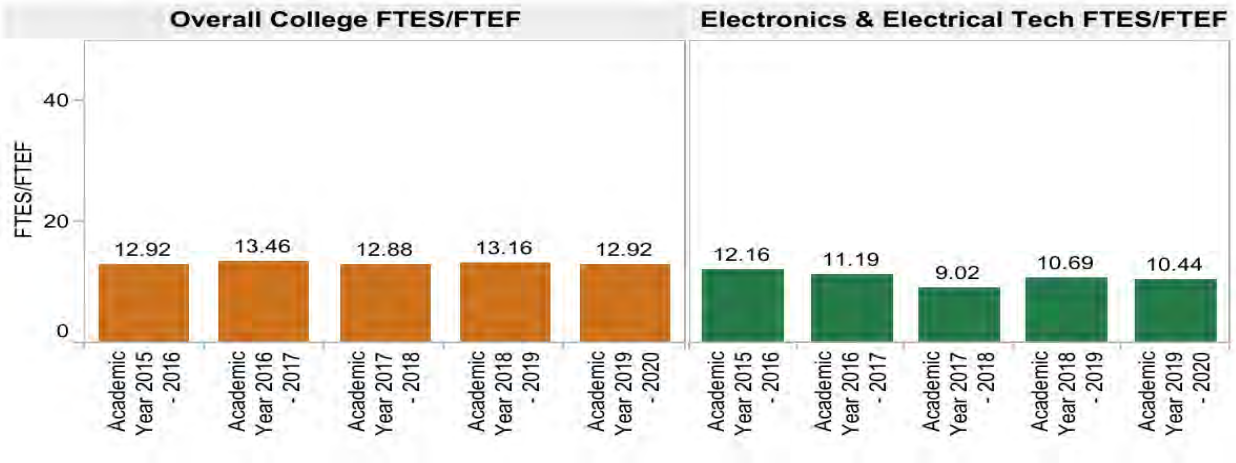
FTES/FTEF: The ratio of total FTES to Full-Time Equivalent Faculty
(SXD4 Total-Hours/17.5)/XE03 FACULTY-ASSIGNMENT-FTE)

In comparing overall college FTES/FTEF efficiency to EET Department efficiency it should be noted that the Electronics and Electrical Technology (EET) Department is segmented into 2 separate tracks. The electrical track prepare students for the CA General Electrician Certification Exam and electrical/electronic Industry placement in general. The Nuclear Track is more specifically a cohort that prepares students for a potential placement with the Diablo canyon nuclear power plant (PG&E) and for employment as Nuclear Maintenance Technicians. As the nuclear cohort is targeted toward and subsidized by the DCPP, and the overall efficiencies of the Nuclear Track are lower than that of the Electrical Track. And as a result, the program as a whole has lower efficiencies. This has been discussed with college administrators and in summary, the efficiency reduction is offset by ongoing subsidies from the DCPP and for Nuclear Maintenance Technicians.

Although we recognize that FTES/FTEF efficiency is critically important and carries high visibility; our primary hurdle to noticeably increasing EET efficiency is student safety. The vast majority of EET courses involve students building, testing, and in close proximity to energized electrical circuits. This dramatically limits our ability to increase hybrid and traditional course caps involving face-to-face laboratories with energized electrical circuits. For the few courses that do not expose students to energized electrical circuits, we have increased course caps and work to safely accommodate students in the program to increase and maximize efficiency.

SLOCCCD Program Review Data - Efficiency (FTES/FTEF)

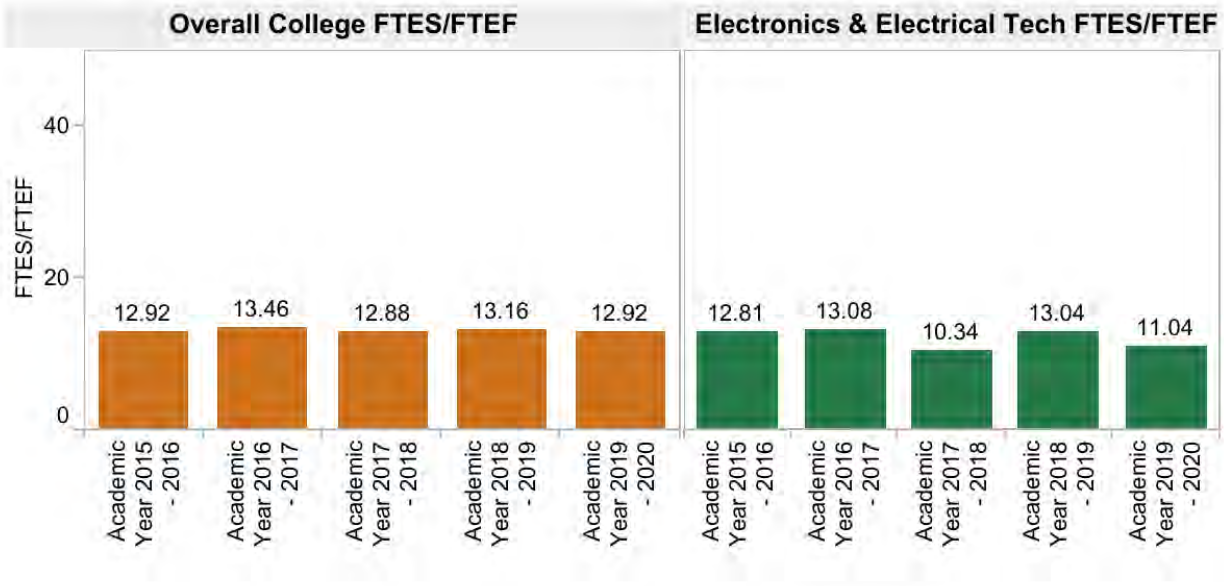
Department:	Course:	Dual Enrollment:	Prison:
Electronics & Electrical Tech	All	Not Dual Enrollment	All



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

SLOCCCD Program Review Data - Efficiency (FTES/FTEF)

Department:	Course:	Dual Enrollment:	Prison:
Electronics & Electrical Tech	EET 213	All	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)

Refer to the following page for data summary.

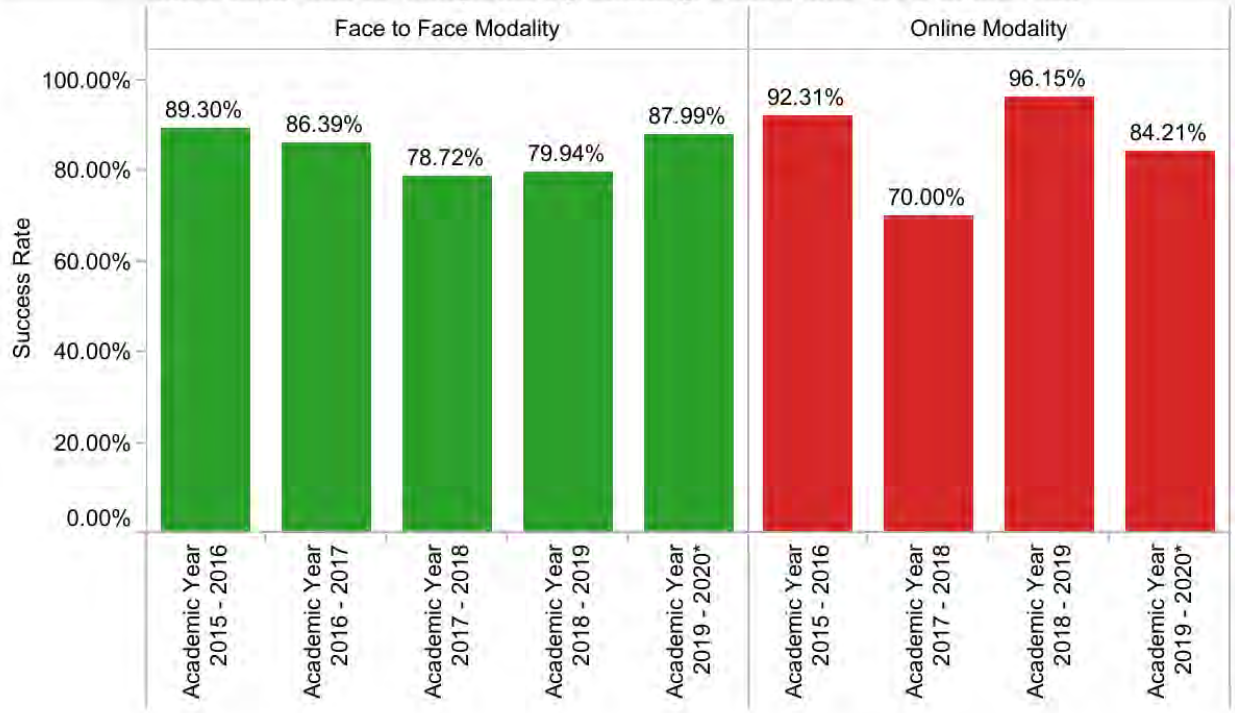
SLOCCCD Program Review Data: Successful Course Completion

Select Department:
Electronics & Electrical Tech

Course:
All

Legend:
Face to Face Modality
Online Modality

Successful Course Competion by Modality -Electronics & Electrical Tech



Successful Course Competion by Modality Table - Electronics & Electrical Tech

		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	89.30%	86.39%	78.72%	79.94%	87.99%
	Total Department Enrollments	215.0	191.0	282.0	334.0	312.0
Online Modality	Department Success Rate	92.31%		70.00%	96.15%	84.21%
	Total Department Enrollments	13.0		20.0	26.0	38.0

Degrees and Certificates Awarded (Insert Data Chart)

Both awarded degrees and certificates in the EET program have been historically low. During 2017 – 2018 the EET department has awarded only 1 less degree/certificate that were awarded over the previous 4 academic years. This is a significant improvement for the 2017 – 2018 academic year however, overall degrees and certificates awarded needs to be improved and is being addressed.

We attribute this statistically painful trend to the fact that our average student obtains their electrician trainee certification during their first course in the curriculum. Typically, students are quickly recruited by local electrical contractors due to the demand as well as the fact that electrical contractors may not employee trainees who are not certified by the Division of Labor Enforcement (per CLC 108 – 108.5). Due to the fact that the EET program at Cuesta is the only (non-union) state certified program within 100 miles, our entry-level students find initial employment quickly at $15 to $19 per hour or more depending on experience, work ethic, soft skills, etc.

Electrical contractors may not legally allow electrician trainees to work alone or supervise others. As a result, contractors typically encourage/pressure EET students to take and pass the state general electrician journey-person exam as soon as they are eligible. Our statistics to date show that we have a first-time pass rate of approximately 95% thru 2019. The statewide average first-time pass rate has been less than 53%. As a result of the foregoing, students typically do not even apply to be awarded their certificate of completion for which all requirements must be met in order to sit for the state general electrician exam. One of the problems we are addressing with our advisory committee is that there is currently little or no financial or short-term promotional incentive for students to demonstrate they have been awarded a certificate or degree from Cuesta. The primary incentive for students is to qualify to sit for the general electrician exam and pass. We are working to encourage local contractors to provide an incentive for students to initially submit their application for their earned Cuesta certification(s) and emphasize longer-term promotional opportunities for students to complete their general education requirements to receive their Associate of Science in Electrical Technology.

Additionally, state electrician exam preparation curriculum has been completed and uploaded to the canvas LMS. We are currently working to integrate a requirement for students to submit the necessary application(s) for associate degrees and certificates as part of a grade incentive in delivering the State electrician exam preparation curriculum. Implementation is currently being discussed with us the college administration.

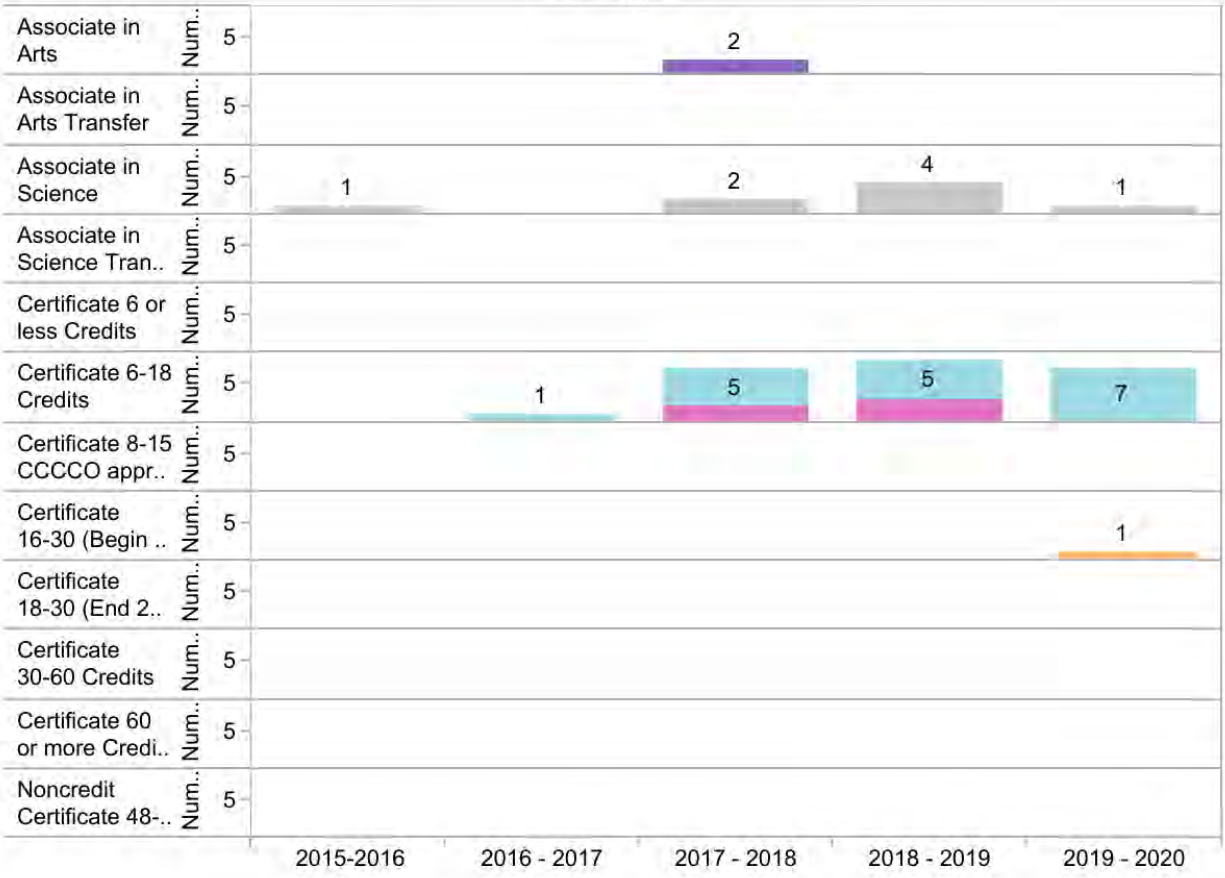
SLOCCCD Program Review Data: Degrees and Certificates Awarded

Program: Electronics & Electric Tech

Award Type: All

Program Awards

Top Code Description(s): Electronics & Electric Tech
Award(s): All



Program Awards Table

Award T..	Award	2015-2016	2016 - 2017	2017 - 2018	2018 - 2019	2019 - 2020
Associate in Arts	Electronics Technology (AA)			2		
	Total			2		
Associate in Science	Electronics Technology (AS)	1		2	4	1
	Total	1		2	4	1
Certificate 6-18	Nuclear Energy Systems (CS)		1	5	5	7

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

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

Overall successful course completion within the EET department is approximately 10% above the college average. We partially attribute this trend to the fact that the EET department does not offer any General education courses and that students typically enroll in the program to become eligible to work for electrical contractors and/or the nuclear maintenance program at the Diablo canyon nuclear power plant. If students do not complete 150 hours of academic curriculums in the program per year they are no longer eligible for their State issued electrician training certification/card. In such cases, State wide electrical contractors will not continue to employ them due to the fact that they will be subject to fines and sanctions by the registrar of contractors.

SLOCCCD Program Review Data: Successful Course Completion

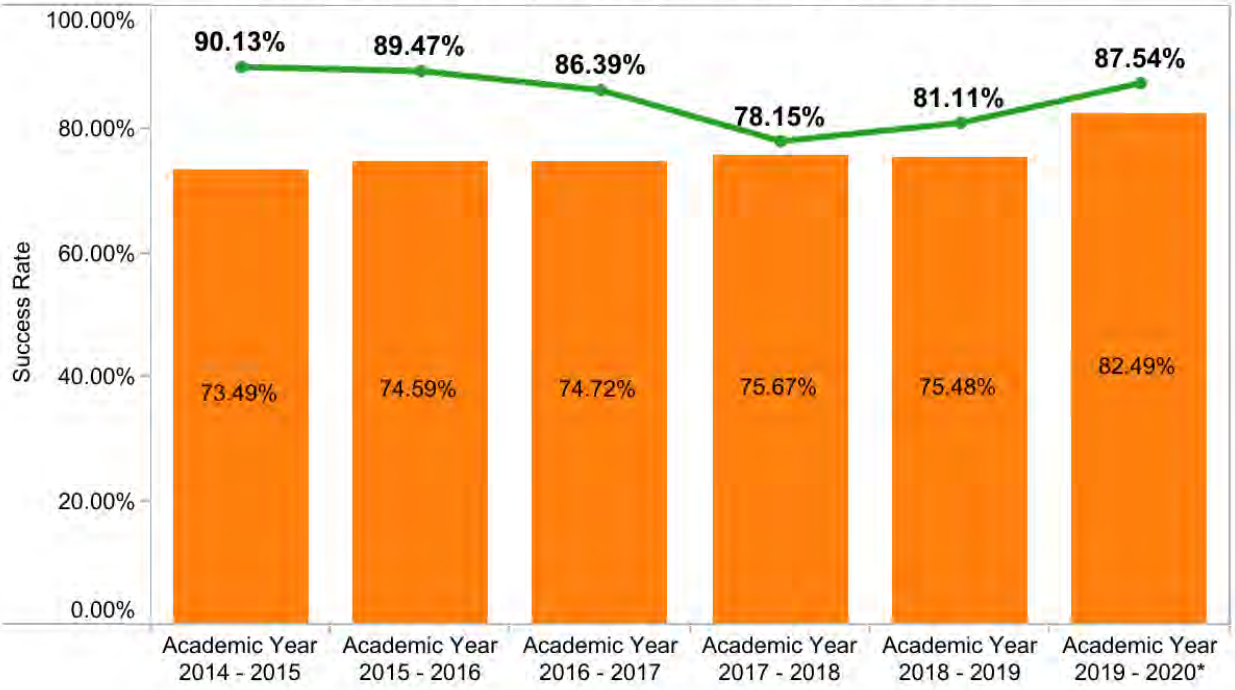
Select Department:
Electronics & Electrical Tech

TERM_ID
All

COURSE
All

Measure Names
Department Success Rate
Overall College Success Rate

Successful Course Completion - Electronics & Electrical Tech

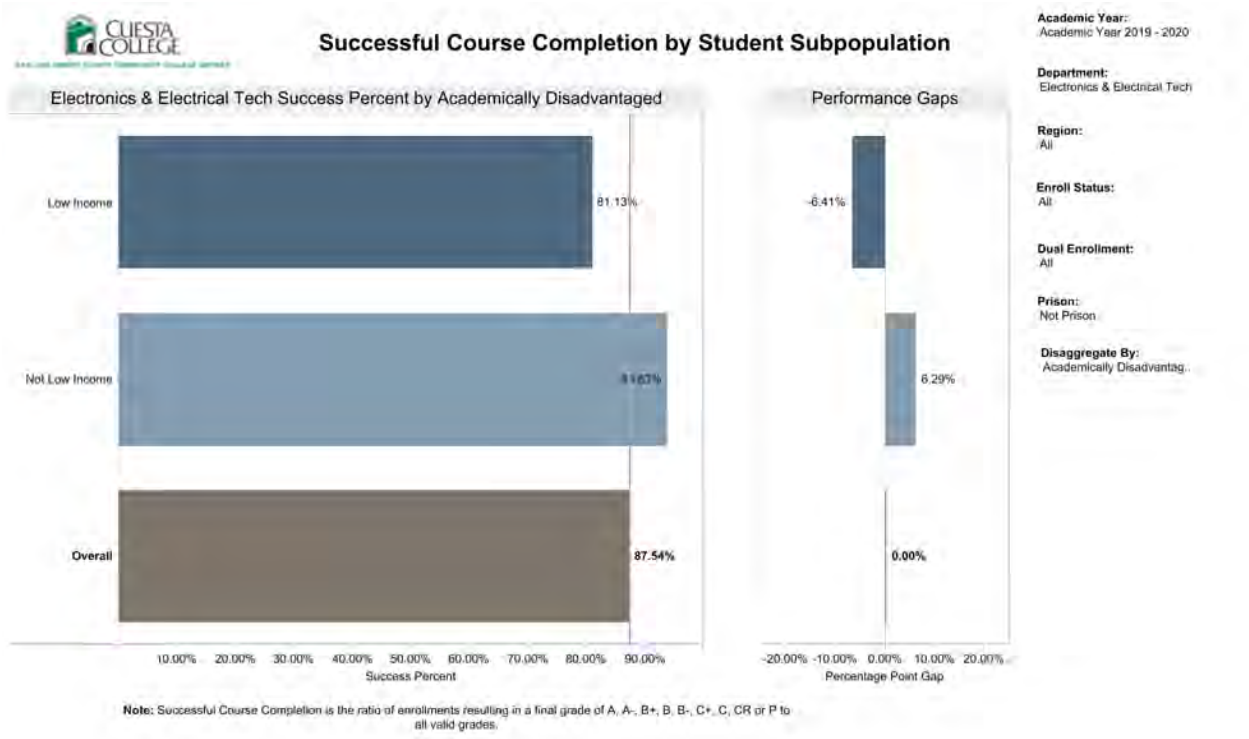


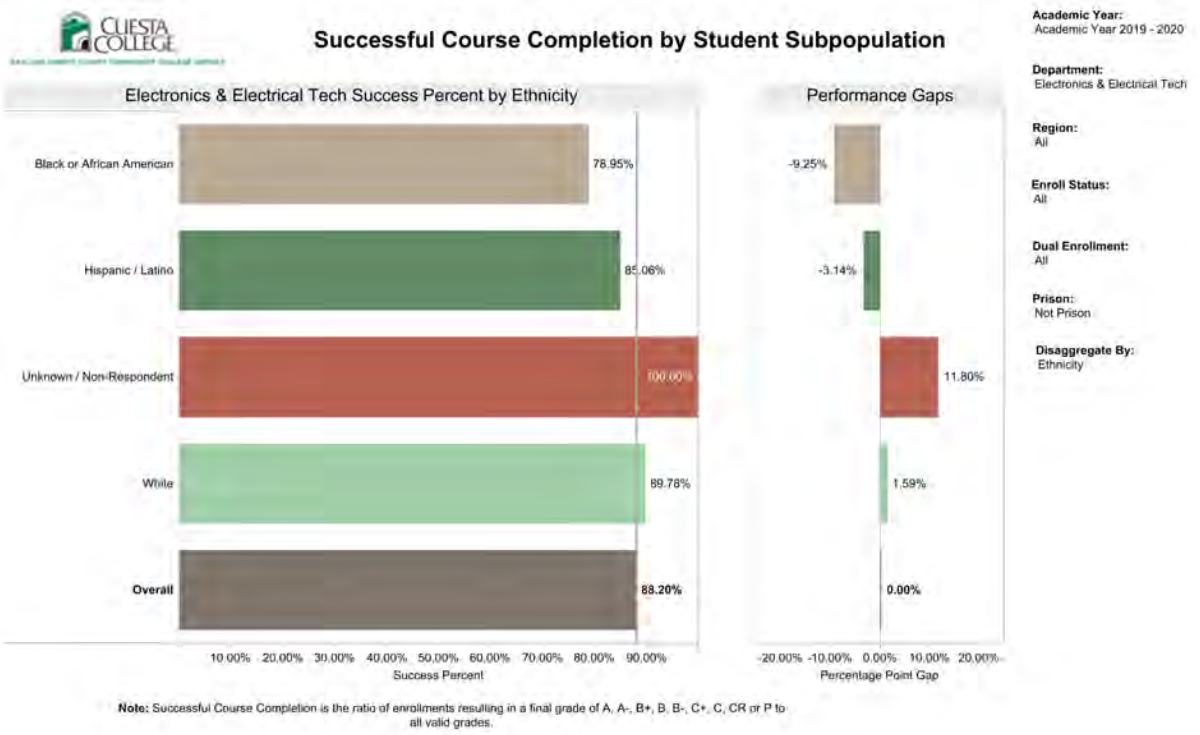
Electronics & Electrical Tech Success Rate Table

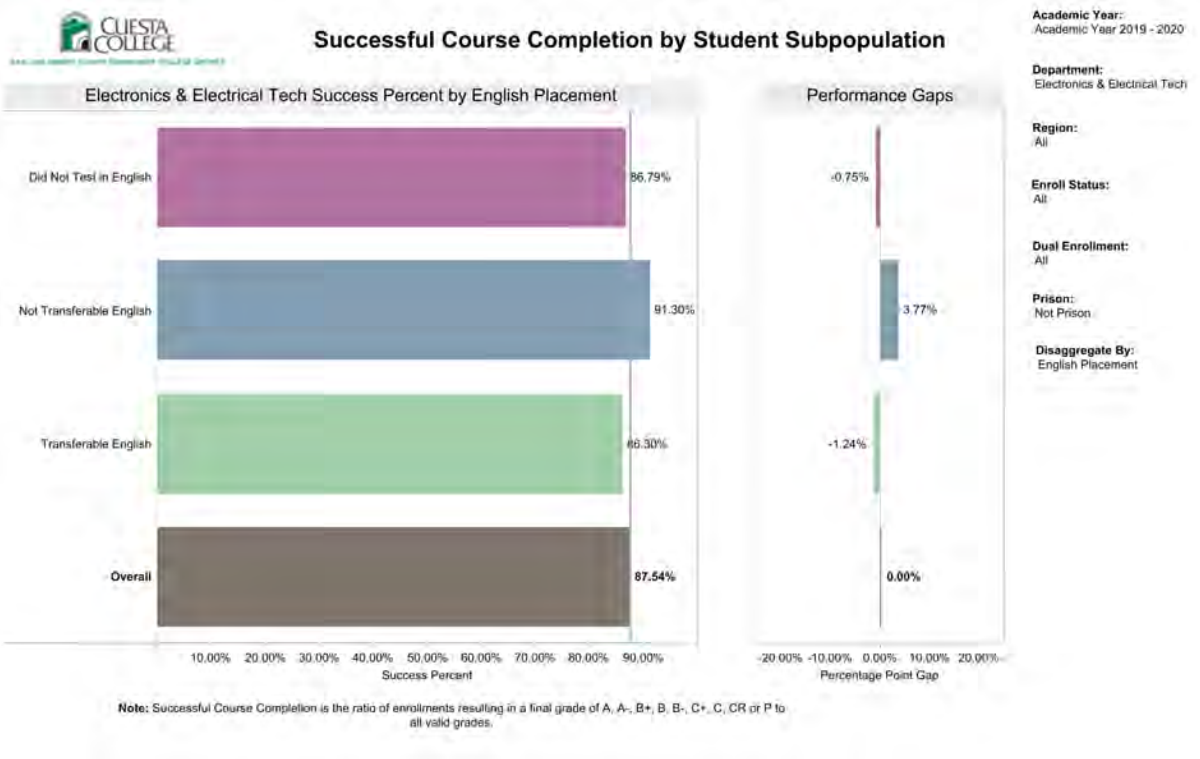
	Academic Year 2015 - 2016	Academic Year 2016 - 2017	Academic Year 2017 - 2018	Academic Year 2018 - 2019	Academic Year 2019 - 2020*
Department Success..	89.47%	86.39%	78.15%	81.11%	87.54%
Total Enrollments	228	191	302	360	350

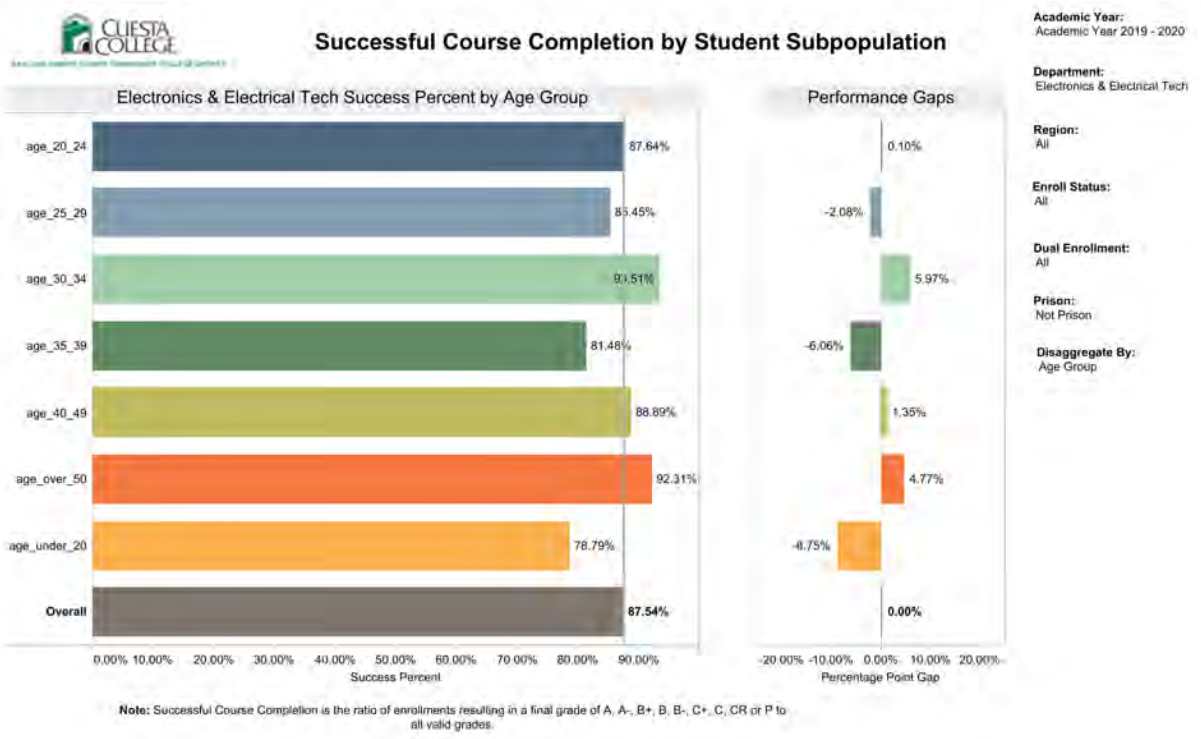
Success: The Percentage of student enrollments resulting in a final grade of "C" or better

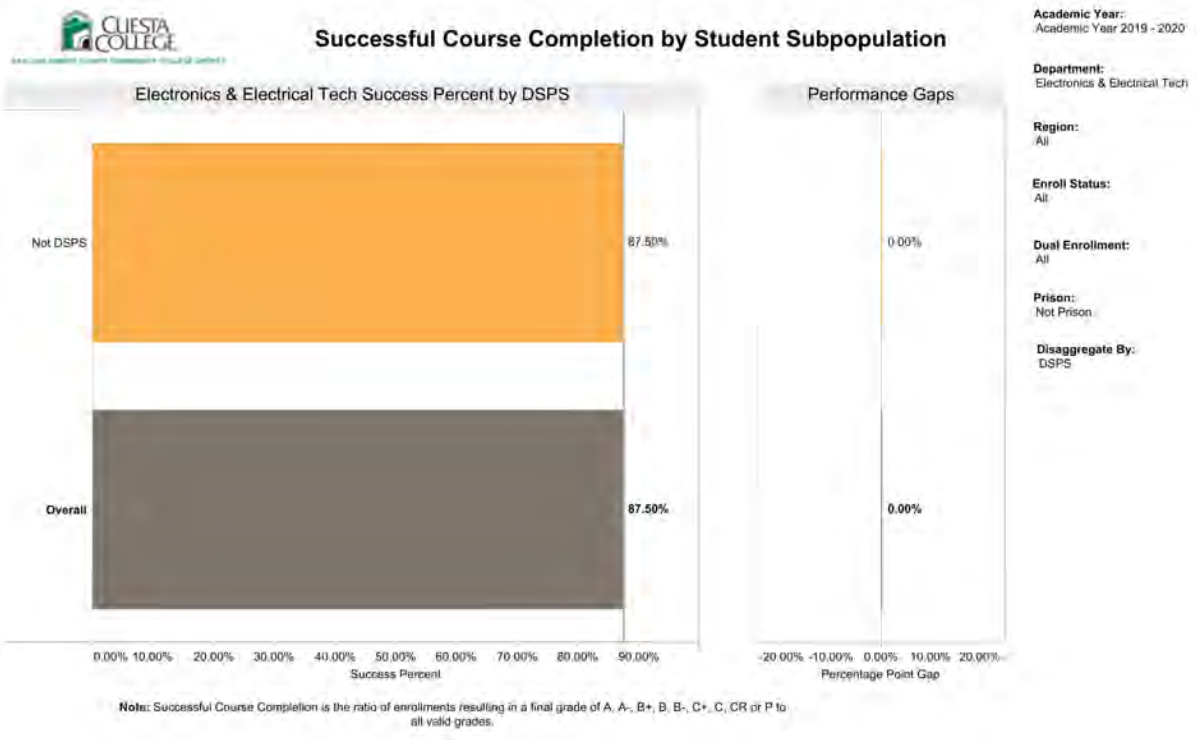
Review the Disaggregated Student Success charts; include any charts that you will reference. Describe any departmental or pedagogical outcomes that have occurred as a result of programmatic discussion regarding the data presented.

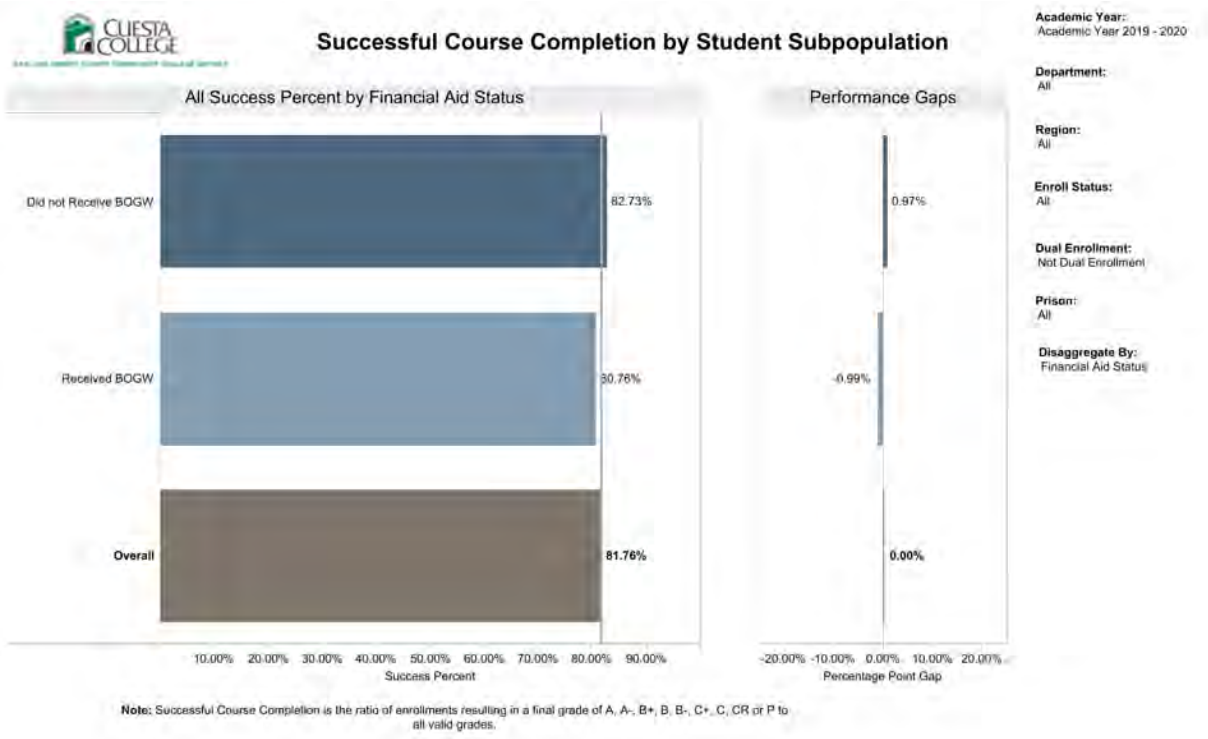



CUESTA COLLEGE
Successful Course Completion by Student Subpopulation
Electronics & Electrical Tech Success Percent by Ethnicity
Black or African American
Hispanic / Latino
Unknown / Non-Respondent
White
Overall
78.95%
85.06%
100.00%
89.78%
88.20%
10.00% 20.00% 30.00% 40.00% 50.00% 60.00% 70.00% 80.00% 90.00%
Success Percent
Performance Gaps
-9.25%
-3.14%
11.80%
1.59%
0.00%
-20.00% -10.00% 0.00% 10.00% 20.00%
Percentage Point Gap
Academic Year:
Academic Year 2019 - 2020
Department:
Electronics & Electrical Tech
Region:
All
Enroll Status:
All
Dual Enrollment:
All
Prison:
Not Prison
Disaggregate By:
Ethnicity
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.

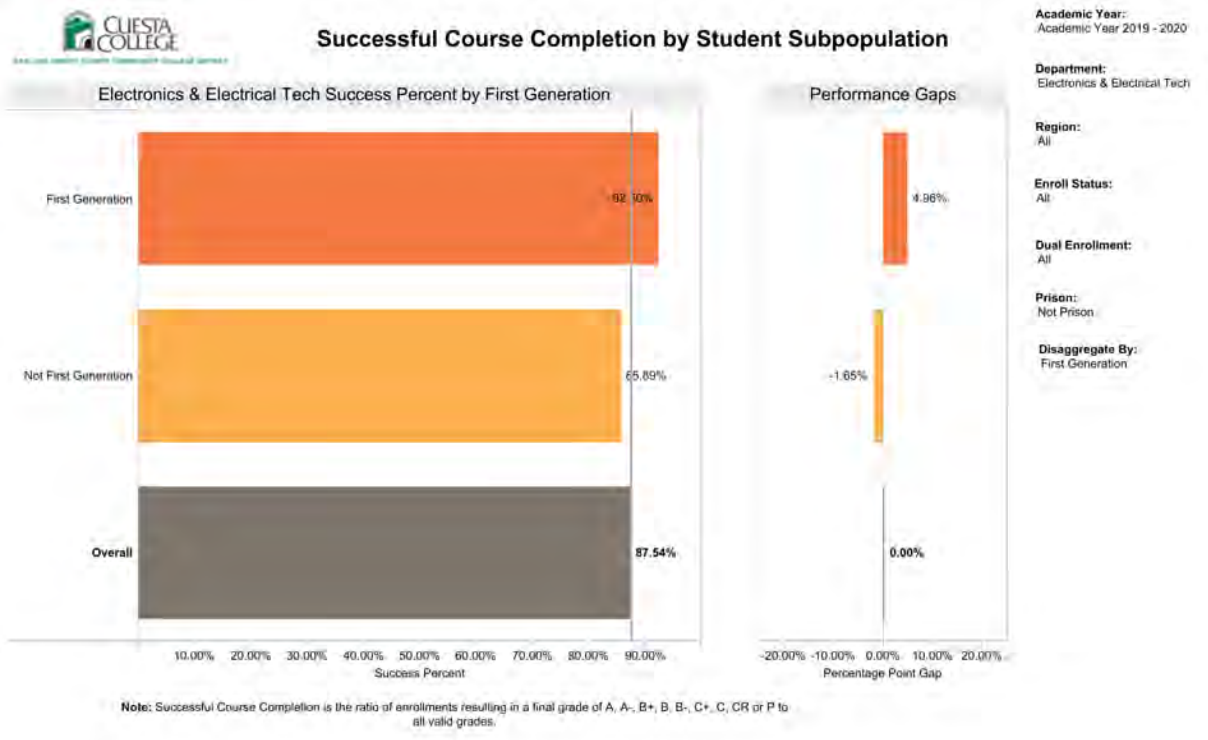

CUESTA COLLEGE
Successful Course Completion by Student Subpopulation
Electronics & Electrical Tech Success Percent by English Placement
Did Not Test in English
Not Transferable English
Transferable English
Overall
86.79%
91.30%
86.30%
87.54%
10.00% 20.00% 30.00% 40.00% 50.00% 60.00% 70.00% 80.00% 90.00%
Success Percent
Performance Gaps
-0.75%
3.77%
-1.24%
0.00%
-20.00% -10.00% 0.00% 10.00% 20.00%
Percentage Point Gap
Academic Year:
Academic Year 2019 - 2020
Department:
Electronics & Electrical Tech
Region:
All
Enroll Status:
All
Dual Enrollment:
All
Prison:
Not Prison
Disaggregate By:
English Placement
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.


Successful Course Completion by Student Subpopulation
Electronics & Electrical Tech Success Percent by Age Group
Performance Gaps
age_20_24
age_25_29
age_30_34
age_35_39
age_40_49
age_over_50
age_under_20
Overall
87.64%
85.45%
91.51%
81.48%
88.89%
92.31%
78.79%
87.54%
0.10%
-2.08%
5.97%
-6.06%
1.35%
4.77%
-8.75%
0.00%
0.00% 10.00% 20.00% 30.00% 40.00% 50.00% 60.00% 70.00% 80.00% 90.00%
Success Percent
-20.00% -10.00% 0.00% 10.00% 20.00%
Percentage Point Gap
Academic Year:
Academic Year 2019 - 2020
Department:
Electronics & Electrical Tech
Region:
All
Enroll Status:
All
Dual Enrollment:
All
Prison:
Not Prison
Disaggregate By:
Age Group
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.

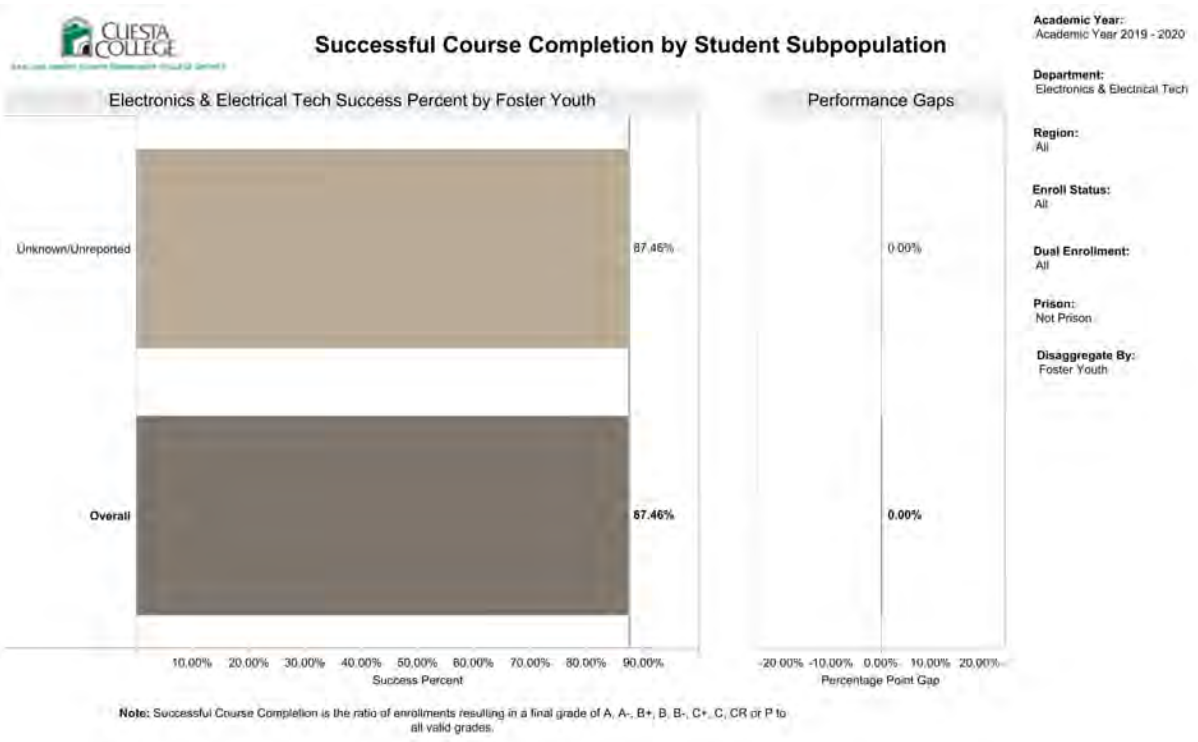

Successful Course Completion by Student Subpopulation
Electronics & Electrical Tech Success Percent by DSPS
Performance Gaps
Not DSPS
Overall
87.50%
87.50%
0.00%
0.00%
0.00% 10.00% 20.00% 30.00% 40.00% 50.00% 60.00% 70.00% 80.00% 90.00%
Success Percent
-20.00% -10.00% 0.00% 10.00% 20.00%
Percentage Point Gap
Academic Year:
Academic Year 2019 - 2020
Department:
Electronics & Electrical Tech
Region:
All
Enroll Status:
All
Dual Enrollment:
All
Prison:
Not Prison
Disaggregate By:
DSPS
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.



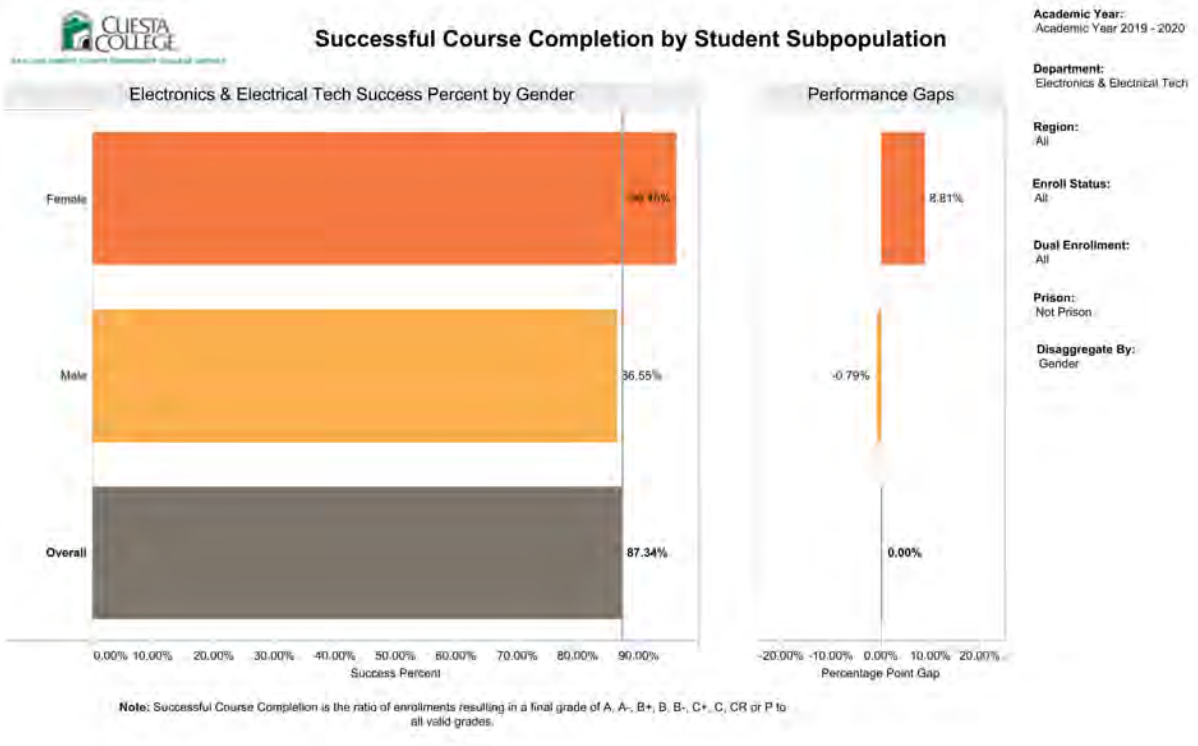
Note: Successful Course Completion is the ratio of enrollments resulting in a final grade of A, A-, B+, B, B-, C+, C, CR or P to all valid grades.



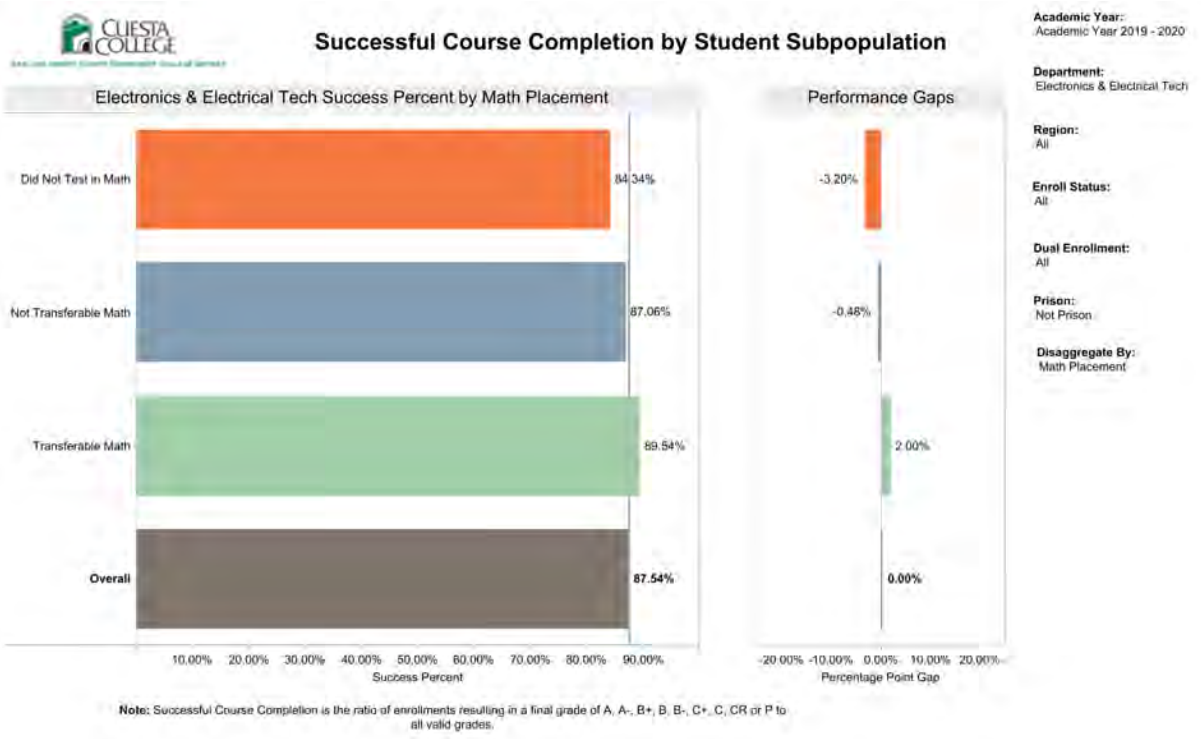
Note: Successful Course Completion is the ratio of enrollments resulting in a final grade of A, A-, B+, B, B-, C+, C, CR or P to all valid grades.



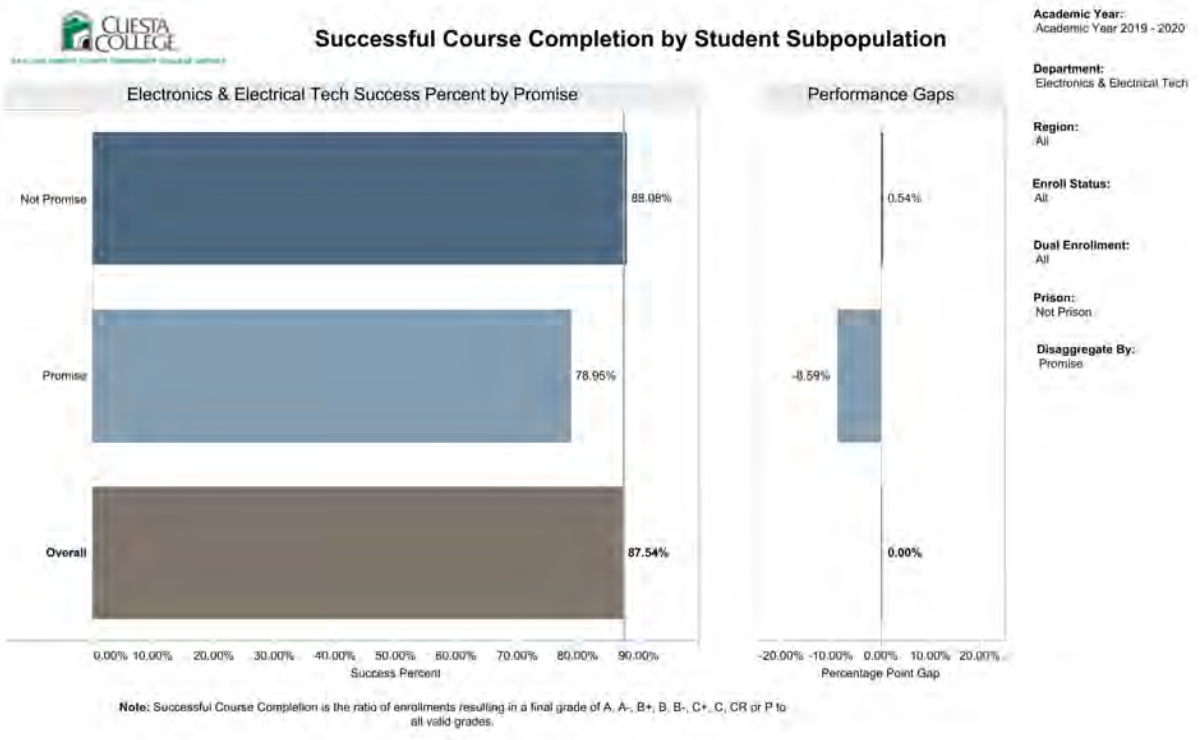
Note: Successful Course Completion is the ratio of enrollments resulting in a final grade of A, A-, B+, B, B-, C+, C, CR or P to all valid grades.



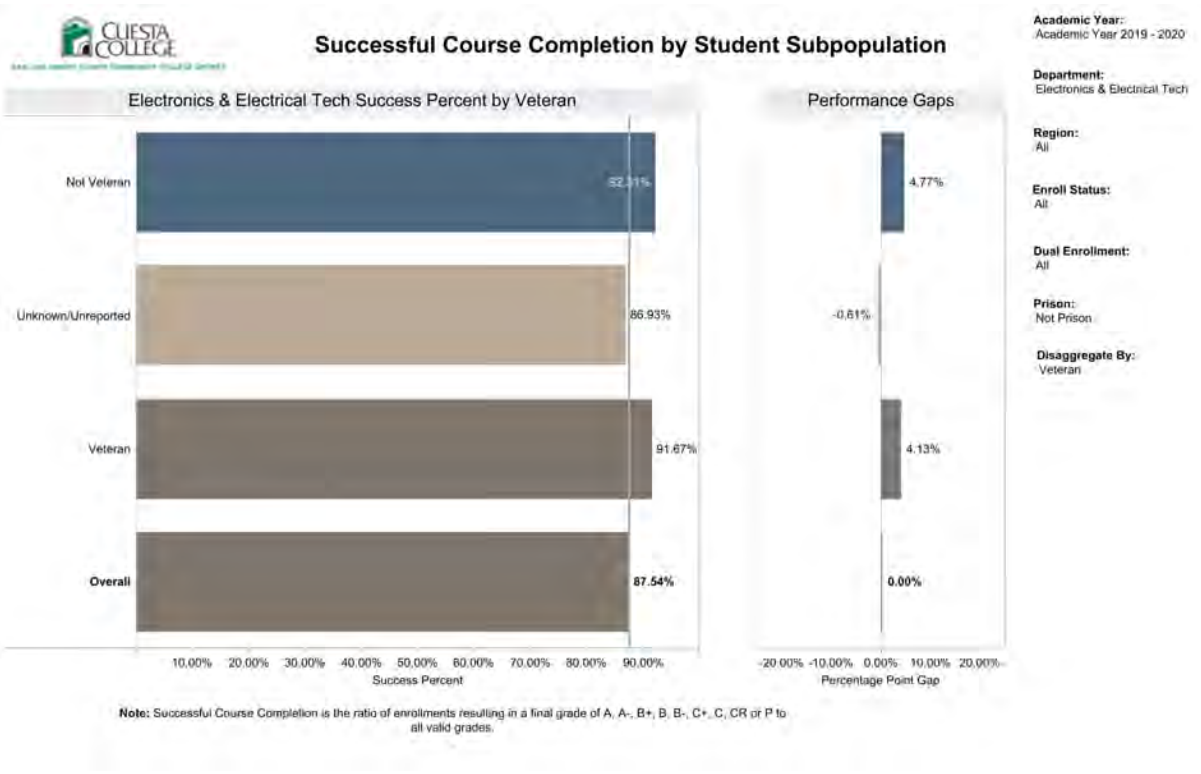
Note: Successful Course Completion is the ratio of enrollments resulting in a final grade of A, A-, B+, B, B-, C+, C, CR or P to all valid grades.



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.



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.


Successful Course Completion by Student Subpopulation
Electronics & Electrical Tech Success Percent by Veteran
Performance Gaps
Not Veteran
Unknown/Unreported
Veteran
Overall
87.54%
91.67%
86.93%
4.77%
-0.61%
4.13%
0.00%
10.00% 20.00% 30.00% 40.00% 50.00% 60.00% 70.00% 80.00% 90.00%
Success Percent
-20.00% -10.00% 0.00% 10.00% 20.00%
Percentage Point Gap
Academic Year:
Academic Year 2019 - 2020
Department:
Electronics & Electrical Tech
Region:
All
Enroll Status:
All
Dual Enrollment:
All
Prison:
Not Prison
Disaggregate By:
Veteran
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.

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.

The EET program is the only state certified electrician training program within 100 miles of Cuesta's main campus. Additionally, the program is rated at the highest level of certification through the Division of Labor Enforcement, Electrician Certification Unit (per California labor code sections (108 – 108.5) Neither Cal poly nor Hancock is certified and the 2 closest certified institutes known are: Santa Barbara city College (south) and Hartnell Community College (north). Both of these mentioned certified electrician training institutes maintain the lowest (Residential) certification whereas Cuesta College maintains the highest (Whole General Electrician Curriculum) certification. Certifications are determined through an extensive audit process by the state Division of Labor Enforcement, Electrician Certification Unit.

Screenshot from state website:

147 Cuesta College - Open to the public

Approved to Offer Whole General Electrician Curriculum

San Luis Obispo County
P.O. Box 8106
San Luis Obispo, CA 93403
Phone (805) 546-3264
Fax (805) 546-3963
Contacts: John Cascamo (Administrator), john_cascamo@cuesta.edu
Bret Allen (Technical), ballen@cuesta.edu
Website: www.cuesta.edu

To date, approximately 92% of EET students who have completed the required coursework to sit for the General Electrician Exam have passed on their first attempt. This is based on student feedback to faculty but due to the fact that the EET program is not a cohort and confidentiality issues, it is difficult to track exactly. The state average is below 52% for first time attempts according to the Division of Labor Standards Enforcement, Electrician Certification Unit

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). **"N/A"**

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:*

The primary program changes which has been implemented in the previous year as a direct result of program needs have been a permanent change in the Cuesta catalog involving the course EET-119 (State Electrician Trainee Topics). The course was officially changed in the catalog from a 2-unit the survey course to a 4-unit requirement for the Certificate of Achievement in Electronics and State Electrician.

Additionally, the electrical technology track directly supports our general electrician trainee certification. The state of California projects that the electrician trade will be the fastest growing, highest demand, shortest supply of all craft trades through 2025 and beyond. Journey level electricians earned a median income of over $73,000 per year in San Luis Obispo County during 2019. Several graduates of the EET program have well exceeded that income with 4 or more years of experience at the journey person level.

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
   Further implementation of the General State Electrician Certification <u>Preparation Curriculum</u> which is currently uploaded to the Canvas LMS.
C. Levels, delivery or types of services
D. Facilities changes
E. Staffing projections
   Permeate part-time lab-aide (backfill – Bill Bauer) Top 10 E&T multiple years
   Part-time adjunct faculty pool.

F. Other

Electrical work-truck and/or trailer for state electrical program.

Electrical hand tools and additional supply budget ~ + $5,000. For Residential, Commercial & Industrial Wiring Courses

Note: EET supply budget currently @ $3,500 / year… Previously, ~ $9,000. / year. REQUESTING INCREASE of $2,700. per year for… $6,200 EET Annual Budget effective January – 2022.

PROGRAM SUSTAINABILITY PLAN PROGRESS REPORT ("N/A")

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		☐ Identified ☐ Resources Allocated ☐ Implemented	Select one
Student Demand (Fill Rate)		☐ Identified ☐ Resources Allocated ☐ Implemented	Select one
Efficiency (FTES/FTEF)		☐ Identified ☐ Resources Allocated ☐ Implemented	Select one
Student Success – Course Completion		☐ Identified ☐ Resources Allocated ☐ Implemented	Select one
Student Success — Course Modality		☐ Identified ☐ Resources Allocated ☐ Implemented	Select one
Degrees and Certificates Awarded		☐ Identified ☐ Resources Allocated ☐ 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. "N/A"