



2020-2021 Program Review Report

Division/Area Name: CTE/Technical Trades Department / ABDY	For Planning Years: 2022-2023
Name of person leading this review: Tim Sturm	
Names of all participants in this review: Alan Finch, Antony Pustizzi, and Pedro Mejia	

Part 1. Program Overview:

1.1. Briefly describe how the program contributes to the district <u>mission</u>	
<p>The Auto Body program contributes to the district mission as a career technical program. It offers “essential career technical instruction” in the auto body field. The program provides students with the skills and knowledge necessary to secure long-term employment in high wage, high-skilled careers. In addition, the program provides the local auto body and aeronautical industries with skilled entry level technicians.</p>	
1.2. State briefly program highlights and accomplishments	
<p>The ABDY program continues to be a resource for the community to use as a hiring pool for entry level techs. In addition, Northrop has contacted Dr. Clinton about creating a class for Aircraft Painting certificate and we are in discussions on that development.</p> <p>The Auto Body program maintains our relationship with I-CAR, and they have waived the fees to our students, and we currently are providing I-CAR accounts for our students in which they are training and receiving nationally recognized certificates.</p> <p>The Auto Body program has recently applied and were granted a Perkins grant, and we will be revamping the auto body classroom/lab and tool room, training aids and tooling to be more up to date with the industry standards.</p>	
1.3. Check each <u>Institutional Learning Outcome (ILO)</u> supported by the program. Type an “X” if checkbox is unavailable.	
X Communication	<input type="checkbox"/> Demonstrates analytical reading and writing skills including research, quantitative and qualitative evaluation and synthesis. <input checked="" type="checkbox"/> Demonstrates listening and speaking skills that result in focused and coherent communications
X Creative, Critical, and Analytical Thinking	<input checked="" type="checkbox"/> Uses intellectual curiosity, judgment and analytical decision-making in the acquisition, integration and application of knowledge and skills. <input type="checkbox"/> Solves problems utilizing technology, quantitative and qualitative information and mathematical concepts.
X Community/Global Consciousness	<input checked="" type="checkbox"/> Understands and applies personal concepts of integrity, ethics, self-esteem, lifelong learning, while contributing to the well-being of society and the environment.

	<input type="checkbox"/> Demonstrates an awareness and respect of the values of diversity, complexity, aesthetics and varied cultural expressions.
X Career and Specialized Knowledge	X Demonstrates knowledge, skills and abilities related to student educational goals, including career, transfer and personal enrichment.
1.4. Check each Educational Master Plan (EMP)/Strategic Plan Goal supported by the program. Type an "X" if checkbox is unavailable.	
<input type="checkbox"/> Goal 1: Commitment to strengthening institutional effectiveness measures and practices.	
<input type="checkbox"/> Goal 2: Increase efficient and effective use of resources: Technology; Facilities; Human Resources; Business Services.	
<input type="checkbox"/> Goal 3: Focus on utilizing proven instructional strategies that will foster transferable intellectual skills.	
<input type="checkbox"/> Goal 4: Advance more students to college-level coursework-Develop and implement effective placement tools.	
X Goal 5: Align instructional programs to the skills identified by the labor market.	

Part 2.A. Please provide the results of any internal and external environmental scan information you have gathered related to the program e.g. surveys, interviews, focus groups, advisory groups, licensure exam scores, job placement, State mandates, etc.:

Short term Occupational projections 2020-2022 https://projectionscentral.org/					
California Auto body and related repairers -	Base	Projected	Change	% Change	Avg Annual Change
	12,600	15,200	2,600	20.6	2,620
Long term projections 2018-2028	Base	Projected	Change	% Change	Avg Annual Change
	14,500	14,800	300	2.1	1,440
Based on the May -03-2021 Auto Body Advisory meeting the following suggestions were made: Industry partners: The program needs to continue to move forward with the I-CAR Curriculum and the I-CAR certificates, also talked about a Perkins grant so the program can update the tools and add in an Alignment rack as well as update the classroom.					
Action taken: The auto body program did a Perkins Grant, and it was approved, we are in the ordering stage and planning stage for the install of the Alignment rack. Also, the students are already actively obtaining I-car certificates.					

Part 2.B. Analyze the program review data (please see the program review data retrieval instructions and attach your program review data page with any other supporting documents), the above environmental scan information, and anything else related to your area to identify the program strengths, weaknesses, opportunities, & threats (SWOT):

Strengths	The Auto body program continues to provide the necessary for entry level employment into the Auto Body industry. The number of Degrees and certificates continue to increase.
Weaknesses	ABDY seen a decline in success and retention rates as compared to prior years, I believe this is in relation to the Covid 19 pandemic as a lot of students dropped from the classes and some classes were canceled.
Opportunities	To continue to work toward building some stand-alone classes that would have their own certificates, And work with local high schools, as far as a recruitment source for the ABDY program. I would also like to continue talks with Northrop Grumman. Meanwhile by providing not only the AVC certificates but also the nationally recognized I-CAR certificates it will allow our students to enter into long lasting careers in the Auto body industry.

Threats	The possibility of budget cuts always exists but with the Covid pandemic and lower enrolment in the night classes I think this treat is bigger, we also always run the risk of students going out into the work force and not completing their study and getting their certificates. The Auto Body field is not traditionally one that is concerned with degrees.
----------------	---

Part 2.C. Review and comment on progress towards SLO/PLO/OO Outcomes Analysis (fka Action Plans):

Starting this fall semester, I-Car has stepped up and waived the students enrolment fees, and students have been actively working toward their I-CAR certificates. This is going to directly relate to better assessments when it comes to SLO'S.

Part 2.D. Review and comment on progress towards past program review goals:

The ABDY program has made huge advancements when it comes to the past goals, we have been awarded a Perkins grant which is going to allow us to not only update the classroom and tool room. Also, we are purchasing new and updated tooling as well, as new welders and an alignment rack so the students get real hands on training with state-of-the-art equipment.

Part 3. Based on Part 2 above, please list program/area goals for 2021-2022:

<i>Program/Area Goal #</i>	<i>Goal supports which ILO/PLO/SLO/OO?</i>	<i>Description of Goal</i>	<i>Steps to be taken to achieve goal?</i>
#1 Work experience	ILO# 4	To better prepare the students for the workforce and place students in part time work environments.	Have industry professionals come in and talk with students about what they can expect when they go into the Auto Body field. Continue to grow our relationships with local shops.
#2 Enrollment	ILO#3	Improve student enrollment in all sections of the ABDY program continue to help students find employment after completion of course.	Work with local High schools and try and recruit from their senior classes. And have Marketing help with recruitment.
#3 Lab Updates	SLO'S # 1-2-3-4-5	To provide students access to industry standard tools and equipment, help prepare them to work in a professional shop environment and help them become more employable upon graduation.	#1. Use funding granted in Fall 2021 to update pending lab upgrades. #2. Explore more funding opportunities to update remaining shop.

Part 4. Resource Requests that Support Program Needs (Based on above analyses and listed in priority order):

<i>Type of Resource Request</i>	<i>Summary of Request</i>	<i>New or Repeat Request</i>	<i>Amount of Request, \$</i>	<i>One-Time or Recurring Cost, \$</i>	<i>Contact's Name</i>
Faculty	Ongoing need for Adjunct hiring pool.	Repeat		Recurring	Tim Sturm
Classified Staff	None at this time				
Technology	Classroom computers need to be updated	New	unknown	One -time	Tim Sturm
Physical/Facilities	There is still a need to move the frame rack under cover and get all the equipment related to it in one area. And this will have to have concrete poured and a level pad to place the rack on.	Repeat	30,500.00	One Time	Tim Sturm
Supplies	This area needs to be looked at every year due to the cost increase that is happening right now, normal increase is 3 to 5 %, but that is much more right now.	Repeat	Unknown	Recurring	Tim Sturm
Professional Development	Instructors and instructor assistants will need training on the new equipment being purchased for lab.	New	20,000	One Time	Tim Sturm
Other					

****REQUIRED: After gathering the information above, fill out your RESOURCE REQUESTS to be shared with the Budget Committee: <https://www.surveymonkey.com/r/20-21ProgramReview>**

Part 5. Insert your Program Review Data here, as well as any other supporting data. (See Part 2.B above.)

Please Select **Subject** area (*twice*) and **Program Major(s)** to get your data --->

Select Subject
ABDY

Select Subject again
ABDY

Select Program Major(s)
Multiple values

Academic Year
Multiple values



Retention, Success, Number of Sections, & Enrollment in ABDY (Total AVC rates are shown as | *hover over to see data*)



Enrollment and Number of Sections by **Modality** in ABDY

Instr. Method	2019-2020	2020-2021
Number of Sections		
Traditional	16	7
Enrollment		
Traditional	105	72

Enrollment and Number of Sections by **Location** in ABDY

Location	2019-2020	2020-2021
Number of Sections		
Lancaster	16	7
Enrollment		
Lancaster	105	72

Number of Degrees/Certificates Awarded in [Auto Coll Repair & Refin Spec \(ABDC\)](#), [Auto Coll Rp & Refin Spec Cert \(ABD3\)](#), [Auto Collision Repair Spec \(ABD\)](#) and 3 more

Major Desc	Major Code	Deg./Cert.	Academic Year	Number of Awards
Auto Coll Repair ..	ABDC	Degree	2019-2020	1/AS
Auto Coll Rp & R..	ABD3	Certifica..	2019-2020	3/CT
Auto Collision Repair Spec	ABD	Degree	2019-2020	1/AS
			2020-2021	1/AS
Auto Collision Re..	ABD1	Certifica..	2019-2020	4/CT
Auto Refinishing..	ABDR	Degree	2019-2020	1/AS
Auto Refinishing..	ABD2	Certifica..	2019-2020	4/CT

FTEF by Contract Type, Part-time/Full-time Ratio, FTES, FTES/FTEF in **ABDY**

	Fall 2017	Fall 2018	Fall 2019	Fall 2020
PT (Adjunct) FTEF	1.1	1.7	1.1	0.6
FT (Regular) FTEF	1.1	1.1	1.1	1.1
TOTAL FTEF	2.2	2.8	2.2	1.7
PT/FT FTEF Ratio	1.0	1.5	1.0	0.5
FTES	30.2	30.5	24.0	17.8
FTES/FTEF Ratio	13.7	11.1	10.9	10.5
WSCH/FTEF Ratio	410.8	332.4	326.7	314.8

Click [here](#) to see AVC's Program awards dashboard



2022-2023 Program Review Report

Division/Area Name: CTE/Technical Trades Department / ACRV	For Planning Years: 2022-2023
Name of person leading this review: Joseph Owens	
Names of all participants in this review: Joseph Owens & Robert Nemilla	

Part 1. Program Overview:

1.1. Briefly describe how the program contributes to the district mission	
<p>The faculty and staff of the ACRV Program are dedicated to providing students with the hands-on training required to enter into the Air Conditioning and/or Refrigeration Industry or into an Electro-mechanical field with continuing education, professional development, and the opportunity to learn the fundamentals necessary to be well educated in the Air Conditioning and Refrigeration Industry. Courses are provided for students who wish to complete a certificate or two-year degree, enter the workforce or upgrade their skill level. The ACRV program specifically contributes to the district mission by supporting students seeking technical education to enter the workforce or enhance knowledge with an Air Conditioning and/or Refrigeration Certificate and/or Degree.</p>	
1.2. State briefly program highlights and accomplishments	
<p>Students successfully completing the Air Conditioning and/or Refrigeration program and awarded a Certificate or Degree, have found employment locally in the community, such as in the Facilities Department at Northrup Grumman, Lockheed Martin, Kinkisharo, BYD, Edwards AFB, Antelope Valley and Palmdale Hospitals, local and county School districts. Students have also found employment working in LA at the UCLA Medical Center.</p> <p>Students enrolled in our program have also found employment with local C-20 (HVAC) and C-38 (Refrigeration) contractors, performing installation, maintenance, and repair of HVAC/R systems.</p>	
1.3. Check each Institutional Learning Outcome (ILO) supported by the program. Type an "X" if checkbox is unavailable.	
<input checked="" type="checkbox"/> Communication	<input checked="" type="checkbox"/> Demonstrates analytical reading and writing skills including research, quantitative and qualitative evaluation and synthesis. <input checked="" type="checkbox"/> Demonstrates listening and speaking skills that result in focused and coherent communications
<input checked="" type="checkbox"/> Creative, Critical, and Analytical Thinking	<input checked="" type="checkbox"/> Uses intellectual curiosity, judgment and analytical decision-making in the acquisition, integration and application of knowledge and skills. <input checked="" type="checkbox"/> Solves problems utilizing technology, quantitative and qualitative information and mathematical concepts.
<input type="checkbox"/> Community/Global Consciousness	<input type="checkbox"/> Understands and applies personal concepts of integrity, ethics, self-esteem, lifelong learning, while contributing to the well-being of society and the environment.

	<input type="checkbox"/> Demonstrates an awareness and respect of the values of diversity, complexity, aesthetics and varied cultural expressions.
X Career and Specialized Knowledge	X Demonstrates knowledge, skills and abilities related to student educational goals, including career, transfer and personal enrichment.
1.4. Check each Educational Master Plan (EMP)/Strategic Plan Goal supported by the program. Type an "X" if checkbox is unavailable.	
<input type="checkbox"/> Goal 1:	Commitment to strengthening institutional effectiveness measures and practices.
<input type="checkbox"/> Goal 2:	Increase efficient and effective use of resources: Technology; Facilities; Human Resources; Business Services.
<input type="checkbox"/> Goal 3:	Focus on utilizing proven instructional strategies that will foster transferable intellectual skills.
<input type="checkbox"/> Goal 4:	Advance more students to college-level coursework-Develop and implement effective placement tools.
X Goal 5:	Align instructional programs to the skills identified by the labor market.

Part 2.A. Please provide the results of any internal and external environmental scan information you have gathered related to the program e.g. surveys, interviews, focus groups, advisory groups, licensure exam scores, job placement, State mandates, etc.:

According to the Bureau of Labor Statistics Occupational outlook handbook - shows growth from 2019 through 2029 for: Heating, Air conditioning, and Refrigeration Mechanics and Installers Nationally – at 4% * and California Statewide – 6.5%** Home Appliance Repairers 11.2% ** Installation Maintenance and Repair occupations 9.1% ** Maintenance Workers - Machinery 5.5% ** *Bureau of Labor Statistics, U.S.

Department of Labor, Occupational Outlook Handbook, Heating, Air Conditioning, and Refrigeration Mechanics and Installers, on the Internet at <https://www.bls.gov/ooh/installation-maintenance-and-repair/heating-air-conditioning-and-refrigeration-mechanics-and-installers.htm> (visited October 12, 2020). ** Occupational and Labor Statistics Occupational employment and Wage estimates –California. https://www.bls.gov/oes/current/oes_ca.htm (visited Oct 12, 2020)

Part 2.B. Analyze the program review data (please see the program review data retrieval instructions and attach your program review data page with any other supporting documents), the above environmental scan information, and anything else related to your area to identify the program strengths, weaknesses, opportunities, & threats (SWOT):

Strengths	<p>ACRV program continues to provide the necessary course work to help our student seek entry level employment in the Air conditioning and Refrigeration industries. Students prepare for the EPA Refrigerant Handling Certification exam in our entry level courses practicing refrigerant charging and recovery techniques.</p> <p>We have taught F2F last spring, and offered, for the first time an entry level course over the summer session. ACRV 112, a typical 16 week, two evenings a week as a 12 Week for three nights a week. It was successful with 10 out of 12 completing the course. (Reduced enrollment due to mandated distancing policy)</p>
Weaknesses	<p>The retention rates in ACRV courses are at 92.3 % vs. 88.6 % AVC annual retention rates. Our Spring 2021 success rate including Emergency withdrawals rate was 83.1% vs 74.8% for AVC's Annual Success rate. The numbers are deceiving, due to the Unduplicated number of students is down to 70 from a high of 98 in 2018-2019.</p> <p>We are competing with the Aerospace programs for students seeking a career in an electro-mechanical industry. The composites program has a student waitlist due to their ability to prepare students for employment with large government contractors in a matter of a few</p>

	semesters. I've had students enroll in my program while they waited for background checks, and when that came thru, they dropped their ACRV courses. All this amidst a the Covid pandemic.
Opportunities	<p>Job opportunities in the HVAC field remain consistent fostering a need to form relationships with local businesses for student work experience and job placement. The employees in this industry are essential workers, as they maintain facility environments, Refrigeration for preservation, and storage, not to mention comfort and indoor air quality.</p> <p>Changes with the refrigerants used in the HVAC/R industries have been mandated by the EPA in efforts to curb both and ozone depletion potential (ODP) and GWP (global warming potential). New HC (Hydrocarbon) and HFO (Hydro-Fluro-Olefin) refrigerants are now used in small self-contained equipment and have been approved for use in smaller self-contained equipment. These new refrigerants are labeled as an "A2L" or Non-Toxic but slightly flammable, and require a completely new approach to the handling, use, and the manufacturing of system components. Of course, we need to bring our program around to get ahead of the curve, preparing our students for the change that is to come. Then, there is the Alternative Energy Industry (Solar and Wind turbines) which has been attracting some of our students for their fundamental electro-mechanical skills.</p>
Threats	<p>Students leave the program for work without completing a certificate or degree. We need to provide more counsel to students on the importance of a degree for improved future earnings and career advancement, and option of an incomplete contract.</p> <p>Supply budget is a major concern, as our supply budget, along with block grant money has been slowly reduced. Covid has pushed us to have our students work on individual lab projects instead of the team effort, accelerating the use of our supplies. At this time, it also seems that the lack of shop classes at the high school level has hurt the youth as far as developing interest in the hands-on trades.</p> <p>Presence of online training, while a threat, it may also be considered an opportunity. Online training by Southern California Edison, IHACI (Institute of Heating and Air Conditioning Industry), You-tube and multiple equipment manufacturers offer FREE online courses that are great to augment training in programs like ours. However, they are attracting students as an alternative to Brick-and-Mortar institutions, with no time or transportation constraints. For the intuitive and motivated, an individual could learn all we have to offer without ever stepping into our classrooms. All they lack is the actual hands-on experience which we have. The online resources have increased since Covid, and programs that used to be offered for a fee, are now online for FREE. It may hurt us now, but many of these students will be in later for proper hands-on training.</p>

Part 2.C. Review and comment on progress towards SLO/PLO/OO Outcomes Analysis (fka Action Plans):

We have been successful in meeting our SLO's and PLO's but are in the process of a substantial revision for 80% of our courses writing and implementing improved objectives and learning outcomes, that will facilitate the writing of action plans that are comprehensive and substantial. We still need to develop a course for EPA Refrigerant Handling Certifications and another course for "Working with Flammable Refrigerants" and possibly provide an EPA Certification exam as part of the program (There is a test fee charged by the testing organizations – the estimated cost per exam is \$30)

Part 2.D. Review and comment on progress towards past program review goals:

#1 Improve retention / completion of program certification & degree (progress on goal form 2019-2020 program review) We have finally offered a 5-unit summer class offered for 12 weeks for 3 nights a week. While it was a success, our enrollment was negatively impacted this fall, and the follow-on course needed to be dropped. We also removed the two large 10-unit courses from our course offerings because we are already offering each of them as two five-unit courses. Now all our programs are offered in the same format, whether they are offered in the evenings or the days. This insures consistency across the curriculum. We are doing a substantial revision this Fall which will bring our programs in line with current industry changes and help prepare our students to lead the way with the changes. We have a counselor in CTE – Patti Brown available to help students with counsel.

#2 Marketing and Outreach: New CTE brochures are a work in progress, and they finally were given to us at the Aug “Reg-Fest”

#3 (2019-2020 PR) Work Experience/Job placement: The ACRV program continues to be a direct source of employees to local contractors, maintenance groups as well as county agencies. The goal to restore our work experience program by Fall 2021 Calendar is history. This item will remain as a goal, and hopefully as AP&P are able to work out the red tape of the WE course we will be able to implement by the Fall of the 2022-2023 Year.

#4 (2018-2019 PR – ongoing) We need to upgrade the power grids in our labs and exterior yard.

- a. We need to increase our 3-phase availability in the labs (4 ea. - 3 phase 240V stations with utility disconnects, 50-amp circuit ampacity, with ability to lower fused protection- per lab)
- b. Additional 20-amp circuits 120 V dedicated – for each workbench in each lab.
- c. Out-side lighting to accommodate evening labs in the exterior lot.
- d. Outside (external of building) power sources to be utilized for outside lab projects. (This issue had been brought to facilities, and I believe steps are being taken to resolve as much of this issue as possible with a covered storage / work area in the former parking area to the north of our building between us and the new facility being built. This will take care of all the outside power and lighting issues but do little to resolve the power issues inside the labs.) [new note: Sept 2021 – Appears to be footings for the new cantilevered structure to be built in our back yard (north of EL) Also a containment wall.]

#5 (2018-2019 Program Review – ongoing) Lab equipment storage

- a. We need more space in our labs. Existing space is inadequate to use for storage and active labs simultaneously. We still need a remote storage site / training lab for our training aids and/or a space-saver rack system in our storage room, which will double out storage capacity, and keep the room neat and organized, easing access while improving the conditions of the stored parts and equipment.
- b. Acquire a location / remote lab for Commercial students to work on Commercial and Industrial equipment. (This issue will be partly resolved by the outdoor overhead structure and power grid promised to be provided as part of the new facility next door.) [Note Sept 2021 – The outside yard appears to be on the horizon – however communication is poor and I’m not positive.]

#6. (2018-2019 Program Review – ongoing) Trellis / Rack to support / hang equipment from to facilitate a realistic training environment. –

- a. Build an over-head trellis system to support ductwork, piping, fan coils and air moving equipment to make it possible for the commercial Air Conditioning class to learn on equipment that they will work on in industry.
- b. Need a hydronic system pump and air handling units to maximize training on an eight-ton chiller that was donated to the Commercial air conditioning program. [this unit is presently capable of running with temporary power, form inside the lab – using a 50-amp extension power cable,

and temporary plumbing – material purchased with supply budget. Equipment needs to be permanently mounted and hard wired with appropriately fused disconnects.]

[We will go after a Perkins of SWF proposal after we get out outside storage/lab area with power. The Cantilevered structure being built (I think) will accommodate this equipment]

#7 (2018-2019 Program Review – ongoing) The need for Additional Adjunct instructors and another Teaching assistant

a. Program substantial revision and eventually a program re-write could will reduce class lengths, but increase success and retention rates. (Long 5-hour classes in the evening are an issue for students and the instructors.) We are presently dropping our large 10-unit courses, and only offering 5-unit classes that can be taught in a 16-, 12- or 8-week format)

b. Increased course offerings will make it possible to offer students different career path options. (adding EPA Refrigerant Handling, Flammable refrigerants, OSHA 10 /30, California's Title 24, Codes and Standards, Load Calculations to name a few)

c. An additional TA will improve equipment and supplies security and assist instructors in the labs when working with a 25:1 student teacher ratio. With the COVID 19 changes in instruction, teacher- student ratio has dropped, and the time spent in lab has been reduced with Blended F2F labs. However, between the evening and day classes in our program, our TA cannot adequately cover all the classes being offered. Simple things like no access to replacement batteries can throw a lab off. The additional help in our Tool room has been addressed and will continue to be addressed until it is resolved. An additional TA will also help with maintaining and performing maintenance on the lab equipment. (a task presently falling on the full-time instructor)

[Note Sept 2021 – New refrigerants that are Flammable are already here! They are in Domestic and light commercial refrigeration equipment. Already in window units and small self-contained AC units, Soon in Residential package and split system air conditioners.]

d. We are short a commercial air conditioning instructor and need an additional instructor that we can use when needed, and for substitution. The need for the two additional adjunct instructors or another full-time instructor is needed to get this program back on track. One adjunct to replace the instructor we are short, and another adjunct which we will work into the schedule to increase course offerings throughout the summer sessions, which we started Summer of '21'. A full-time instructor hired now will be able to cover the transition as I retire over the next year. It would be great for the program to have a fulltime instructor either hired or ready to be hired to provide a smooth transition and the ability to grow the program over the summer 22' session, and ease into the new course/program offerings for Fall of 22.

Part 3. Based on Part 2 above, please list program/area goals for 2021-2022:

<i>Program/Area Goal #</i>	<i>Goal supports which ILO/PLO/SLO/OO?</i>	<i>Description of Goal</i>	<i>Steps to be taken to achieve goal?</i>
#1 Retention / Completion of Program	ILO 1,2 & 4 EMP 1 & 3	Increase number of students retained in the program, completing a certificate, and getting a degree.	Faculty to work with current CTE counselor and express to students the importance of striving for educational completion.
#2 Marketing and Outreach	ILO #1, 2 & 4, EMP #2 & 5	Increase the number of incoming students by promoting the program as a viable pathway to employment.	Faculty to work with Marketing and Outreach. Use new pamphlets, flyers, webpage, and possible marquee space.
#3 Work Experience / Job Placement		Increase visibility on Linked-In (AVC-ACRV Alumni) and possible start a Facebook page for our program.	Work with IT and possibly work with Marketing and Outreach for online presence.
#4 Power Grid for labs	ILO # 2 & 3, EMP #2 & 5, PLO #2 & 4	a. We need to increase our 3-phase availability in the labs (4 ea. - 3 phase 240V stations with utility disconnects, 50-amp circuit ampacity, with ability to lower fused protection- per lab) b. Additional 20-amp circuits 120 V dedicated – for each workbench c. Out-side lighting to accommodate evening labs in the exterior lot. d. Outside (external of building) power sources to be utilized for outside lab projects	Request consistent/reliable district operating funds: SWP, Cal-Works, and Block Grants. For lab equipment, Prop 20 funding for instructional supplies and supplement with Perkins and Strong Workforce resources as needed.
#5 Lab Equipment storage	ILO # 2 & 3, EMP #2 & 5, PLO #2 & 4	We need more space in our labs. Existing space is inadequate to use for storage and active labs simultaneously. A space-saver rack system will double our storage space in our labs, and we need a remote storage site / training lab for our training aids. b. Acquire a location / remote lab for Commercial students	Request consistent/reliable district operating funds: CalWORKs Block Grant for lab equipment, Prop 20 funding for instructional supplies and supplement with Perkins and Strong Workforce resources as needed.

		to work on Commercial and Industrial equipment. (Outside storage / lab has potential and could remedy this issue)	
#6 Trellis –to hang Equipment	ILO # 2 & 3, EMP #2 & 5, PLO #2 & 4	Build an over-head trellis system to support ductwork, piping, fan coils and air moving equipment to make it possible for the commercial Air Conditioning class to learn on equipment that they will work on in industry. • Equipment could be set up and operational for advanced course training, allow diagnostics, repair, maintenance and disassembly and assembly of this equipment. • Need a hydronic system pump and air handling units to maximize training on an eight-ton chiller that was donated to the Commercial air conditioning program.	Request consistent/reliable district operating funds: CalWORKs Block Grant for lab equipment, Prop 20 funding for instructional supplies and supplement with Perkins and Strong Workforce resources as needed.
#7 Adjunct instructors and TA	ILO #1, 2 & 4, EMP #2 & 5	Program re-structure which will reduce class lengths but increase success and retention rates. * Long 5-hour classes in the evening are an issue for students and the instructors. *Increased course offerings will make it possible to offer students different career path options. * TA will assist with student teacher ratios which are	Eliminate long 16-week, 320-hour courses by offering two 8 week 160 hour courses. Then offering the 160-hour courses in 16-week, 12 week and 8 week formats. Then every class could be rotated right thru the summer session, offered day or night, full or parttime.

Part 4. Resource Requests that Support Program Needs (Based on above analyses and listed in priority order):

<i>Type of Resource Request</i>	<i>Summary of Request</i>	<i>New or Repeat Request</i>	<i>Amount of Request, \$</i>	<i>One-Time or Recurring Cost, \$</i>	<i>Contact's Name</i>
Faculty	Build a strong hiring pool for instructors-hire two adjunct instructors and a TA	Repeat	Unknown	Recurring	J. Owens

Classified Staff	TA = With the new flammable refrigerants we need an additional TA to be sure all our instructors have the instructional support and back-up when working with these flammable gases with a full classroom.	Repeat – just increased need.	Unknown	Recurring for Salary	J. Owens / R. Nemila
Technology	Hydro-carbon Refrigeration Systems New Refrigerants – HC (Hydrocarbons) and Olefins (HFO's) which are both A2L (slightly flammable.) Requiring re-tooling and equipment, and improved ventilation.	Repeat	\$40K	\$40K onetime \$4K recurring	J. Owens/ R. Nemila
Technology	A built-up hydronic air handling unit and air distribution system trainer, with hot and cold decks, economizer, multi zone system. Horizontal / Hanging	Repeat	\$150K	\$150K one time	J Owens / R Nemila
Physical/Facilities	Upgrade the electrical power distribution system in both our labs. to 120V / 240V single phase and 3 phase, and increase the circuits to each workstation	Repeat	\$100K	\$100K one time	J Owens / R Nemila
Physical/Facilities	As we get our new outside training are, we will need funding to purchase both residential and commercial air handling and air distribution systems.	Repeat	\$150K (probably SWP in 2022)	\$150K one time and \$5K recurring	J Owens / R Nemila
Physical/Facilities	Additional space for storage of training equipment and labs would be accomplished by enclosed pallet racks for outside yard, and roll-up rack system for inside storage room.	Repeat	\$50K	\$50K One time	J Owens / R Nemila
Supplies	An increase in entry level students will mean an increase in the use of supplies used in our fundamental labs.	Repeat	\$10K	\$10K recurring	J Owens / R Nemila
Professional Development	Instructors in this program are generally not professional teachers. They come from industry, and need FPD on method of instruction, presentation,	Repeat	\$6K	\$6 K recurring To maintain currency	J Owens/ R Nemila

	handling conflict etc. We also need professional development on the new flammable refrigerant for both handling procedures, and methods of training.				
--	--	--	--	--	--

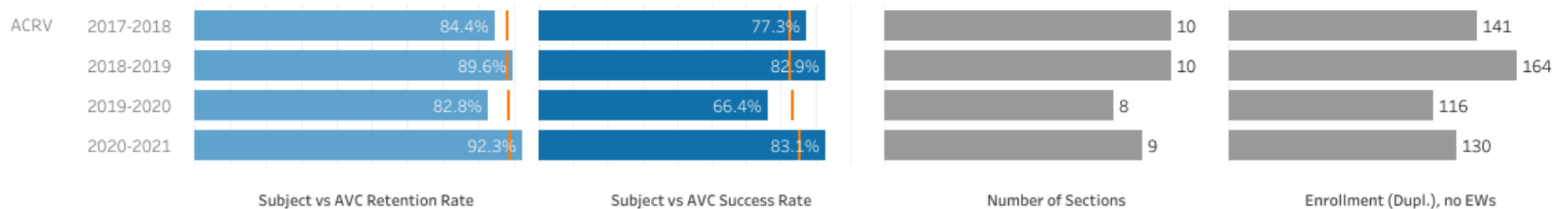
Part 5. Insert your Program Review Data here, as well as any other supporting data. (See Part 2.B above.)

Please Select **Subject** area (twice) and **Program Major(s)** to get your data --->

Select Subject ACRV | Select Subject again ACRV | Select Program Major(s) Multiple values | Academic Year Multiple values



Retention, Success, Number of Sections, & Enrollment in ACRV (Total AVC rates are shown as | hover over to see data)



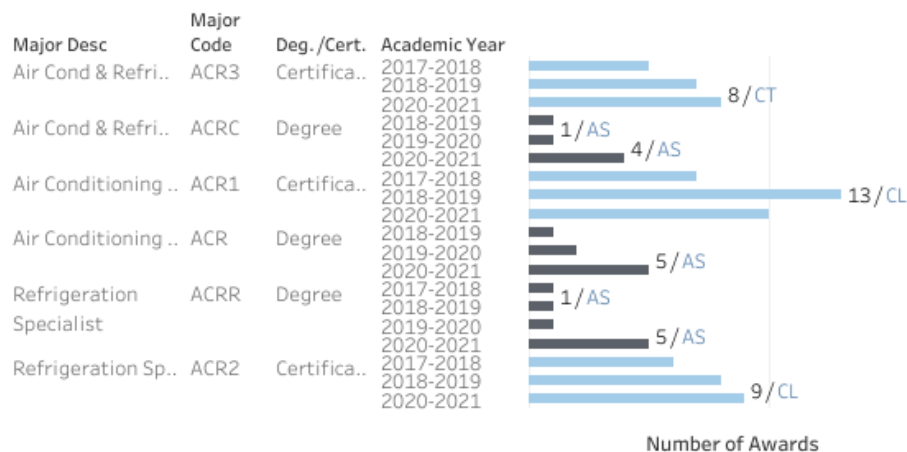
Enrollment and Number of Sections by *Modality* in ACRV

Instr. Method	2017-2018	2018-2019	2019-2020	2020-2021
Number of Sections				
Other Indep Study	1			1
Traditional	9	10	8	8
Enrollment				
Other Indep Study	3			3
Traditional	138	164	122	127

Enrollment and Number of Sections by *Location* in ACRV

Location	2017-2018	2018-2019	2019-2020	2020-2021
Number of Sections				
Lancaster	10	10	8	9
Enrollment				
Lancaster	141	164	122	130

Number of Degrees/Certificates Awarded in Air Cond & Refrig Spec Cert (ACR3), Air Cond & Refrigeration Spec (ACRC), Air Conditioning Spec Cert (ACR1) and 3 more



FTEF by Contract Type, Part-time/Full-time Ratio, FTES, FTES/FTEF in ACRV

	Fall 2017	Fall 2018	Fall 2019	Fall 2020
PT (Adjunct) FTEF	1.7	2.2	1.7	1.7
FT (Regular) FTEF	1.7	1.1	1.1	0.6
TOTAL FTEF	3.3	3.3	2.8	2.3
PT/FT FTEF Ratio	1.0	2.0	1.5	2.8
FTES	36.4	33.3	28.2	21.6
FTES/FTEF Ratio	11.0	10.0	10.2	9.4
WSCH/FTEF Ratio	329.5	301.4	306.0	282.1

Click [here](#) to see AVC's Program awards dashboard



Program Awards (Last update: 9/20/21; Data Source: AVC Banner System) Click on any field to filter data

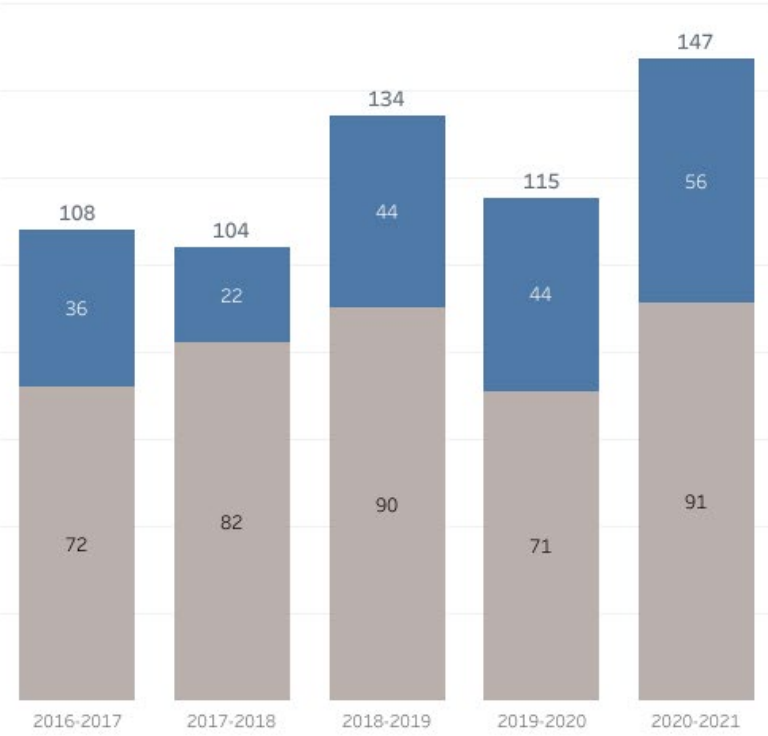
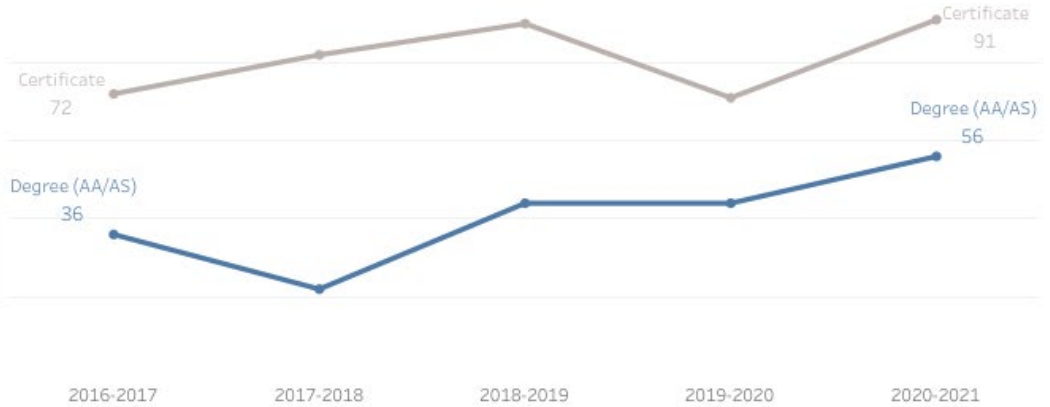
Major Degree or Certificate
Multiple values Multiple values

2016-2017 2017-2018 2018-2019 2019-2020 2020-2021

Degree (AA/AS) 36 22 44 44 56

Certificate 72 82 90 71 91

Total 108 104 134 115 147



Major	Degree or Ce..	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
Engine and Drive Trains Cert AU..	Certificate	6	9	2	13	2
Electronics Technology ELT	Degree (AA/..	7	6	5	12	16
Electrical Technology ELE	Degree (AA/..	9	7	8	12	7
Welding Cert WLD1	Certificate	14	7	7	6	6
Electrical Engineering ENRE	Degree (AA/..			9	5	13
Driveability, Emiss &Elec Cert A..	Certificate	3	4	2	5	
Auto Refinishing Spec Cert ABD2	Certificate	7	9	10	4	
Auto Collision Repr Spec Cert A..	Certificate	8	9	8	4	
Engine & Drive Trains AUT	Degree (AA/..	1	1	2	3	1
Driveability, Emiss &Elec AUTD	Degree (AA/..	2	2	2	3	
Auto Coll Rp & Refin Spec Cert A..	Certificate	6	7	10	3	
Welding WLD	Degree (AA/..	5	5	6	2	4
Air Conditioning Specialist ACR	Degree (AA/..	1		1	2	5
Refrigeration Specialist ACRR	Degree (AA/..	1	1	1	1	5
Auto Refinishing Spec ABDR	Degree (AA/..	3		3	1	
Auto Collision Repair Spec ABD	Degree (AA/..	3		3	1	1
Auto Coll Repair & Refin Spec A..	Degree (AA/..	3		3	1	
Air Cond & Refrigeration Spec A..	Degree (AA/..	1		1	1	4
Refrigeration Specialist Cert AC..	Certificate	2	6	8		9
Indust Manuf Tech Apprent IMTA	Certificate					24
Air Conditioning Spec Cert ACR1	Certificate		7	13		10
Air Cond & Refrig Spec Cert ACR3	Certificate		5	7		8



2020-2021 Program Review Report

Division/Area Name: CTE/Aeronautical Sciences & Technology/ AERO	For Planning Years: 2022-2023
Name of person leading this review: Jack R. Halliday	
Names of all participants in this review: Jack R. Halliday, Tyrone Mettler, David Champieux, and Douglas Nuckolls	

Part 1. Program Overview:

1.1. Briefly describe how the program contributes to the district <u>mission</u>	
The Airframe and Powerplant Program contributes to the college mission as a career technical program. The program offers three associates degrees and three certificates to the students upon completion of the program. In addition, the program is also part of the college's baccalaureate degree in Airframe Manufacturing Technology.	
1.2. State briefly program highlights and accomplishments	
The program moved into our new facility at Fox Field airport. This has given us a one-stop shop to teach all the classes and the students have access to a 10,000 square foot hangar, with plenty of storage for equipment. The program is ordering a runnable turbofan engine to enhance student ability to become familiar with and operate a jet engine. We are also enhancing equipment needed to teach more students the standards related to electronics and electrical systems. We are also in the process of placing new cylinders on our running aircraft to allow the students to operate more complex piston engines.	
1.3. Check each <u>Institutional Learning Outcome (ILO)</u> supported by the program. Type an "X" if checkbox is unavailable.	
<input checked="" type="checkbox"/> Communication	<input type="checkbox"/> Demonstrates analytical reading and writing skills including research, quantitative and qualitative evaluation and synthesis. <input type="checkbox"/> Demonstrates listening and speaking skills that result in focused and coherent communications
<input type="checkbox"/> Creative, Critical, and Analytical Thinking	<input type="checkbox"/> Uses intellectual curiosity, judgment and analytical decision-making in the acquisition, integration and application of knowledge and skills. <input type="checkbox"/> Solves problems utilizing technology, quantitative and qualitative information and mathematical concepts.
<input type="checkbox"/> Community/Global Consciousness	<input type="checkbox"/> Understands and applies personal concepts of integrity, ethics, self-esteem, lifelong learning, while contributing to the well-being of society and the environment. <input type="checkbox"/> Demonstrates an awareness and respect of the values of diversity, complexity, aesthetics and varied cultural expressions.
<input type="checkbox"/> Career and Specialized Knowledge	<input type="checkbox"/> Demonstrates knowledge, skills and abilities related to student educational goals, including career, transfer and personal enrichment.

1.4. Check each Educational Master Plan (EMP)/Strategic Plan Goal supported by the program. Type an "X" if checkbox is unavailable.

<input type="checkbox"/> Goal 1: Commitment to strengthening institutional effectiveness measures and practices.
<input type="checkbox"/> Goal 2: Increase efficient and effective use of resources: Technology; Facilities; Human Resources; Business Services.
<input type="checkbox"/> Goal 3: Focus on utilizing proven instructional strategies that will foster transferable intellectual skills.
<input type="checkbox"/> Goal 4: Advance more students to college-level coursework-Develop and implement effective placement tools.
<input checked="" type="checkbox"/> Goal 5: Align instructional programs to the skills identified by the labor market.

Part 2.A. Please provide the results of any internal and external environmental scan information you have gathered related to the program e.g. surveys, interviews, focus groups, advisory groups, licensure exam scores, job placement, State mandates, etc.:

The faculty in the program have examined the school testing norms published by the Federal Aviation Administration. The norms have shown some improvement over the second quarter for the last two years. Seventy-eight percent of those students who took the Airframe written exam passed the test, while 100% of the students have passed both the Aircraft General written exam and the Powerplant written exam over the same time. The program also held an advisory committee meeting on March 29th, 2021. It was discussed by the committee members that the program is awaiting the long-awaited change to the 14 CFR 147 regulation which governs the certification of airframe and powerplant programs. Once this change occurs, the program will need to revise the curriculum to match the new regulation.

Part 2.B. Analyze the program review data (please see the program review data retrieval instructions and attach your program review data page with any other supporting documents), the above environmental scan information, and anything else related to your area to identify the program strengths, weaknesses, opportunities, & threats (SWOT):

Strengths	The student success on the Federal Aviation Administration (FAA) written exams is a definite strength for the program. They are learning what they need to know to become aircraft mechanics. The student enrollment for the program is still very strong. The programs retention and success rates are very high (mid-90%) over the last four years. The program continues to have a waitlist every semester for students to enter the courses. The job market in the Antelope Valley continues to be fairly strong for the graduating students regardless if they have their mechanic's certificates from the FAA. The program has seen a significant increase in the number of women enrolling in the program. It has doubled in the last two years.
Weaknesses	The issue of certificates and associate degrees has declined over the last year due mostly to COVID related issues.
Opportunities	The program is continuing to encourage students to apply for certificates of completion and associate degrees during each semester. In addition, the instructors strongly encourage the student to take the written, oral, and practical exams soon after graduation to allow them a better opportunity to be successful on the exams. There are also many opportunities for students to go into other related industries to fill in for the loss of jobs during COVID.
Threats	Since most of the jobs around the area are related to defense spending, cuts in the defense budget could affect the availability of jobs here in the Antelope Valley.

Part 2.C. Review and comment on progress towards SLO/PLO/OO Outcomes Analysis (fka Action Plans):

The program is in the process of updating the electronic training equipment needed to educate the students on aircraft electrical and digital logic systems. The program has moved into its new facility, and it has allowed the program to operate more efficiently and increase student outcomes. The program is also in the process of purchasing a runnable pure jet engine to give students valuable hands-on training in jet engine operation. These should help increase student success in taking the written, oral, and practical exams. The program has obtained the computer-based training system from AeroTRAIN

which allows students to study aircraft maintenance related topics at their own pace. The instructors also use the program for educating an entire course about specific topics.

Part 2.D. Review and comment on progress towards past program review goals:

The program has not updated the curriculum due the fact that the FAA has not released the new 14 CFR 147 regulation. It is anticipated that they will remove the curriculum requirements from the regulation and place them in the new airman certification standard. The program has not obtained an Electronic Flight Information system yet due to cost and finding a compatible system to be used for training. As stated previously, the program has moved to a new facility, which has increased the efficiency of the program.

Part 3. Based on Part 2 above, please list program/area goals for 2021-2022:

<i>Program/Area Goal #</i>	<i>Goal supports which ILO/PLO/SLO/OO?</i>	<i>Description of Goal</i>	<i>Steps to be taken to achieve goal?</i>
#1	Update the program curriculum once the FAA updates 14 CFR Part 147.	The FAA is in the process of updating the regulations related to A&P schools. The update will allow students to be gain skills and training and meet the changing industry standards.	Once the regulations are updated the instructors will begin updating the curriculum to match the regs.
#2	Acquire Electronic Flight Information system equipment	This would allow the program to update the training equipment needed to teach this subject. The update will allow students to be gain skills and training and meet the changing industry standards.	Research types of equipment Apply for a Perkins or Strong Workforce Grant.
#3	Increase the number of students taking the FAA written exams by 20% over the next two years.	Students need to be encouraged to take the exams. They have reluctance due to the cost and difficulty of the exams.	Discuss with the students' tips to taking the exams. Assisting them with good study habits to help in their success in taking the tests.
#4	Add an additional program track to meet industry needs	The program has many students waitlisted each semester, this would allow for another track to be started.	Evaluate student needs, financial impacts, and infrastructure issues.

Part 4. Resource Requests that Support Program Needs (Based on above analyses and listed in priority order):

<i>Type of Resource Request</i>	<i>Summary of Request</i>	<i>New or Repeat Request</i>	<i>Amount of Request, \$</i>	<i>One-Time or Recurring Cost, \$</i>	<i>Contact's Name</i>
---------------------------------	---------------------------	------------------------------	------------------------------	---------------------------------------	-----------------------

Faculty	1 additional instructor	Repeat	\$150,000	Recurring	Jack R. Halliday, Ty Mettler
Classified Staff	1 additional instructional assistant	Repeat	\$75,000	Recurring	Jack R. Halliday, Ty Mettler
Technology	Electronic Flight Information System Equipment	Repeat	\$40,000	One-time	Jack R. Halliday, Ty Mettler
Physical/Facilities					
Supplies	Increase supply budget	Repeat	\$35,000	Recurring	Jack R. Halliday, Ty Mettler
Professional Development					
Other					

****REQUIRED: After gathering the information above, fill out your RESOURCE REQUESTS to be shared with the Budget Committee: <https://www.surveymonkey.com/r/20-21ProgramReview>**

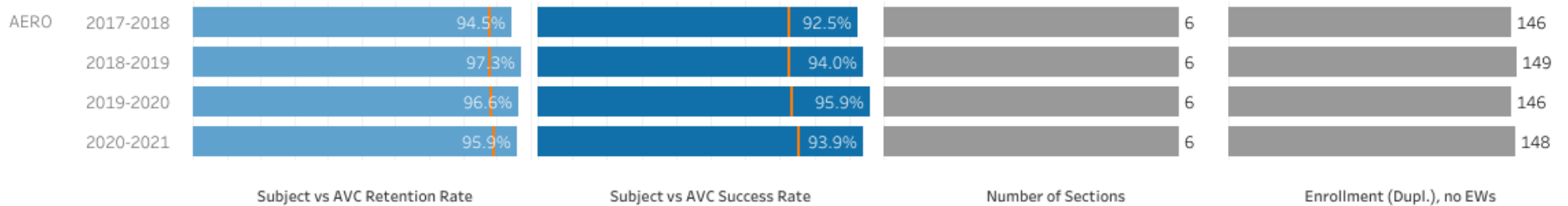
Part 5. Insert your Program Review Data here, as well as any other supporting data. (See Part 2.B above.)

Please Select **Subject** area (twice) and **Program Major(s)** to get your data --->

Select Subject AERO | Select Subject again AERO | Select Program Major(s) Multiple values | Academic Year Multiple values



Retention, Success, Number of Sections, & Enrollment in AERO (Total AVC rates are shown as | hover over to see data)



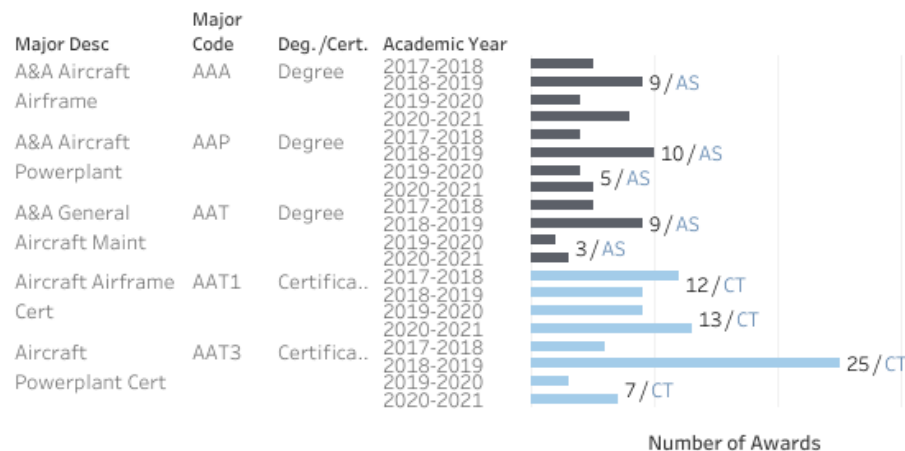
Enrollment and Number of Sections by Modality in AERO

	Instr. Method	2017-2018	2018-2019	2019-2020	2020-2021
Number of Sections	Traditional	6	6	6	6
Enrollment	Traditional	146	150	153	148

Enrollment and Number of Sections by Location in AERO

	Location	2017-2018	2018-2019	2019-2020	2020-2021
Number of Sections	Lancaster [Off Campus]	6	6	6	6
Enrollment	Lancaster [Off Campus]	146	150	153	148

Number of Degrees/Certificates Awarded in A&A Aircraft Airframe (AAA), A&A Aircraft Powerplant (AAP), A&A General Aircraft Maint (AAT) and 2 more



FTEF by Contract Type, Part-time/Full-time Ratio, FTES, FTES/FTEF in AERO

	Fall 2017	Fall 2018	Fall 2019	Fall 2020
PT (Adjunct) FTEF		0.9	1.4	
FT (Regular) FTEF	2.7	2.7	1.4	2.7
TOTAL FTEF	2.7	3.7	2.7	2.7
PT/FT FTEF Ratio	0.0	0.3	1.0	0.0
FTES	42.9	41.2	45.5	45.5
FTES/FTEF Ratio	15.6	11.3	16.6	16.8
WSCH/FTEF Ratio	468.6	337.9	496.7	505.3

Click [here](#) to see AVC's Program awards dashboard



2020-2021 Program Review Report

Division/Area Name: CTE/Aeronautical Sciences & Technology/ AFAB	For Planning Years: 2022-2023
Name of person leading this review: Jack B. Halliday	
Names of all participants in this review: Aeronautical Sciences and Technology (AST) full-time and part-time faculty	

Part 1. Program Overview:

1.1. Briefly describe how the program contributes to the district mission
<p>The Aircraft Fabrication & Assembly Technician program contributes to the district mission as a career technical program. It offers “essential career technical instruction” in the aviation/aerospace manufacturing field. The program provides students with the skills and knowledge necessary to secure long-term employment in high wage, high-skilled careers. In addition, the program provides the local aerospace industry with skilled entry level aircraft fabrication technicians.</p>
1.2. State briefly program highlights and accomplishments
<p>The Aircraft fabrication & Assembly Technician program is part of the Bachelor of Science degree in Airframe Manufacturing Technology. All five courses feed directly into the new degree program. The program continues to be recognized and utilized by Northrop Grumman for providing entry level training for all newly hired structures and composite technicians. The program has major enrollment growth over the last two-years due to the partnership with Northrop Grumman and local aerospace industry partners, as a result the AFAB program has set up accelerated (rapid training) 8-week classes to meet the demand.</p> <p>Due to industry demands the Aeronautical Sciences & Technology Department has developed an Advanced Aircraft Structures Certificate and will be offering these classes/certificate in the Spring 2022 term. Three new additional certificate programs are being developed; Metrology, Non-Destructive Inspection and Aeronautical Leadership & Management programs which are scheduled to be offered Fall 2022.</p> <p>As stated from last year’s program review, the AFAB program received the CTE Stars Award, from the Chancellor’s Office, which recognized Antelope Valley College for its track record on advancing students’ economic mobility in Advanced Manufacturing & Advanced Technology, our students are among the top in the state, with median earnings increase of 101% in Manufacturing & Technology (2017). In 2017 AFAB was one of three programs that the California Economic Summit announced as one of the three regional public-private partnerships for Workforce development honored by the California Economic</p>

Summit's Partnership for Industry and Education. The program fills a need for thousands of trained workers in the region in large part because of Northrop Grumman winning a large Department of Defense contract to build aircraft in Palmdale.

The AFAB program currently has 2 full-time faculty and 20 adjunct faculty for the program. The program has a 95% job placement rate.

The program has continued during the current restrictions of the pandemic COVID 19. Classes were restricted and in-class instruction and lab times were cut almost in half. This has had an adverse impact on student learning outcomes.

1.3. Check each Institutional Learning Outcome (ILO) supported by the program. Type an "X" if checkbox is unavailable.

X Communication	<input type="checkbox"/> Demonstrates analytical reading and writing skills including research, quantitative and qualitative evaluation and synthesis. <input checked="" type="checkbox"/> Demonstrates listening and speaking skills that result in focused and coherent communications
X Creative, Critical, and Analytical Thinking	<input type="checkbox"/> Uses intellectual curiosity, judgment and analytical decision-making in the acquisition, integration and application of knowledge and skills. <input checked="" type="checkbox"/> Solves problems utilizing technology, quantitative and qualitative information and mathematical concepts.
X Community/Global Consciousness	<input checked="" type="checkbox"/> Understands and applies personal concepts of integrity, ethics, self-esteem, lifelong learning, while contributing to the well-being of society and the environment. <input type="checkbox"/> Demonstrates an awareness and respect of the values of diversity, complexity, aesthetics and varied cultural expressions.
X Career and Specialized Knowledge	<input checked="" type="checkbox"/> Demonstrates knowledge, skills and abilities related to student educational goals, including career, transfer and personal enrichment.

1.4. Check each Educational Master Plan (EMP)/Strategic Plan Goal supported by the program. Type an "X" if checkbox is unavailable.

<input type="checkbox"/> Goal 1: Commitment to strengthening institutional effectiveness measures and practices.
<input type="checkbox"/> Goal 2: Increase efficient and effective use of resources: Technology; Facilities; Human Resources; Business Services.
<input type="checkbox"/> Goal 3: Focus on utilizing proven instructional strategies that will foster transferable intellectual skills.
<input type="checkbox"/> Goal 4: Advance more students to college-level coursework-Develop and implement effective placement tools.
<input checked="" type="checkbox"/> Goal 5: Align instructional programs to the skills identified by the labor market.

Part 2.A. Please provide the results of any internal and external environmental scan information you have gathered related to the program e.g. surveys, interviews, focus groups, advisory groups, licensure exam scores, job placement, State mandates, etc.:

Based on the 2020 & 2021 AST Advisory Committee meeting, the following suggestions were made:

Issues Discussed: Committee members agreed that more AFAB classes would be needed in the next few years to meet the impending need of local industry partners. However, new programs need to be developed as well as an advanced structures certificate program. The AST programs still need to continue to update the curriculum as industry standards and practices change. Industry partners noted that there was a noticeable difference in the students that were

interviewed and hired prior to COVID 19. Most industry partners are ramping up with hiring in the 2022/2023 fiscal year and will be monitoring the students' skills and knowledge to ensure that the technical skills are back to pre-COVID standards.

Action Taken: Developed four new certificate programs. Continue to meet with industry partners to discuss up-to-date standards and practices to be added to the curriculum.

Follow Up Items: For long-term planning, a new permanent centralized structures and composite lab needs to be built or acquired for the program or the existing AVC structures and Composite labs need to be expanded and refurbished. New classes and certificate programs need to be developed and added to the schedule to maintain industry needs.

Local industry partners continue to hire students from the AFAB program and our job placement rate is 95%.

Part 2.B. Analyze the [program review data](#) (please see the program review data retrieval instructions and attach your program review data page with any other supporting documents), the above environmental scan information, and anything else related to your area to identify the program strengths, weaknesses, opportunities, & threats (SWOT):

Strengths	AFAB courses are providing the necessary skills and knowledge to meet current employer demands and requirements for entry level positions. The number of AFAB degrees and certificates (AFAB & AFX) awarded has dropped slightly due to the ability of the Department Chair not being able to visit classrooms/labs with instructions to apply for the certificates due to COVID 19 restrictions. Success and retention rates in AFAB courses are higher than AVC rates and stay relatively the same (over 90%) for both markers. Contributing to the success rates for this program are due to AFAB classes continued face-to-face instruction during COVID 19, with restrictions.
Weaknesses	<p>The number of AFAB Degrees awarded increased from 59 for the 2019-2020 academic year to 71 for the 2020-2021 academic year.</p> <p>The AFAB program has been expanding over the past several years and a dedicated position to oversee the logistics of donations, procurement, lab upkeep (5 labs located at 3 different locations (Lancaster, Palmdale Technical Center and Fox Field) and housekeeping is imperative to the success of the program.</p> <p>Program continued under restrictions and class time was lost meeting those restrictions. Industry partners gave students poor reviews, because they did not know how to answer their questions due to limited lab time because of COVID 19 restrictions. The AFAB program is still in the process of recovering.</p> <p>In addition, the Blueprint & Structures certificates have decreased because Dr. Clinton, as the new interim dean, is no longer going to each AFAB class at the end of the term informing students about how to apply for their certificates.</p>
Opportunities	Job opportunities in aircraft manufacturing for entry level technicians has slowed down however, for intermediate and advanced level technicians' positions continue to grow. The new certificates will allow students to apply for intermediate and advanced level positions within the industry.
Threats	Not being able to meet industry demands and they look elsewhere for entry-level, intermediate, and advanced technicians.

Part 2.C. Review and comment on progress towards SLO/PLO/OO Outcomes Analysis (fka Action Plans):

We have developed 4 new certificate programs and have continued to incorporate new industry practices and standards into the AFAB curriculum, adopting a new curriculum and utilizing new technology to our coursework.

Part 2.D. Review and comment on progress towards past program review goals:

We have made progress as the Fox Field location is completed and the new Discovery building is scheduled to be open for the spring 2022 term. The existing labs as scheduled to be renovated and new lab equipment installed in the next academic year to bring up to industry standards.

Progress has been made in terms of marketing students in the program. However, new programs will require new full-time faculty as well as qualified adjunct faculty to teach.

Part 3. Based on Part 2 above, please list program/area goals for 2021-2022:

<i>Program/Area Goal #</i>	<i>Goal supports which ILO/PLO/SLO/OO?</i>	<i>Description of Goal</i>	<i>Steps to be taken to achieve goal?</i>
#1 Facility	ILO #2 & #5 AFAB PLO Action Plan #1	Students need to be prepared with the proper knowledge and skills necessary to enter the workforce in order to be employable and accordingly need access to not only classroom theory but shop/lab work and projects. The AFAB program needs to renovate and improve on the existing labs at the AVC campus. In addition new tooling and equipment needs to be purchased as well as new labs for the new certificate programs.	-Continue to work with advisory committee and recommendations to update labs -Continue to apply for grant funding to support lab renovations and new lab development for existing and new certificate programs.
#2: AST Logistics Coordinator/Supervisor	AST Action Plan	AST Department receives numerous donations of materials/tooling and equipment that has to be identified, picked up, distributed and tracked and then coordinated for three locations. In addition, 4 new programs are being added to the department that will also have these aforementioned needs.	-Request and develop a coordinator or supervisor position for the AST Department
#3: Implement New certificate programs	ILO #2 & #5 AFAB PLO Action Plan #2	Industry has identified needs for new programs/certificates and the AST Department needs to be	- Implement courses and programs. Schedule new offering for spring 2022 and fall 2022.

		prepared to address these needs. The AST department will need to identified labs, equipment, tooling, and faculty for these new programs that can prepare our students for the workforce.	

Part 4. Resource Requests that Support Program Needs (Based on above analyses and listed in priority order):

<i>Type of Resource Request</i>	<i>Summary of Request</i>	<i>New or Repeat Request</i>	<i>Amount of Request, \$</i>	<i>One-Time or Recurring Cost, \$</i>	<i>Contact's Name</i>
Faculty	2 Additional Faculty for new certificate programs	New	140,000	Recurring	Dr. Clinton
Classified Staff	Additional Instructional Assistant for night classes, to maintain all three locations, and the growing and expanding of our program.	Repeat	50,000	Recurring	Dr. Clinton
Technology					
Physical/Facilities	Additional Composite Labs (renovation or new) & Centralized Aeronautical Facility (renovation and added structures)	Repeat	900,000	One Time	Dr. Clinton
Supplies					
Professional Development					
Other	Project Supervisor	Repeat	70,000	Recurring	Dr. Clinton

****REQUIRED: After gathering the information above, fill out your RESOURCE REQUESTS to be shared with the Budget Committee: <https://www.surveymonkey.com/r/20-21ProgramReview>**

Part 5. Insert your Program Review Data here, as well as any other supporting data. (See Part 2.B above.)

Please Select **Subject** area (twice) and **Program Major(s)** to get your data --->

Select Subject
AFAB

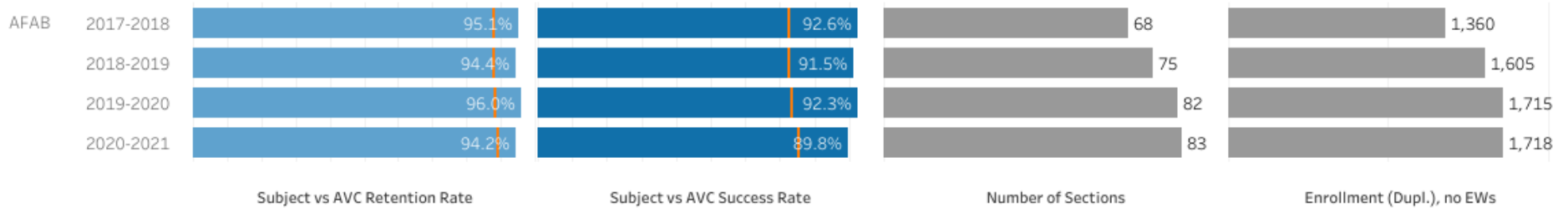
Select Subject again
AFAB

Select Program Major(s)
Multiple values

Academic Year
Multiple values



Retention, Success, Number of Sections, & Enrollment in AFAB (Total AVC rates are shown as | hover over to see data)



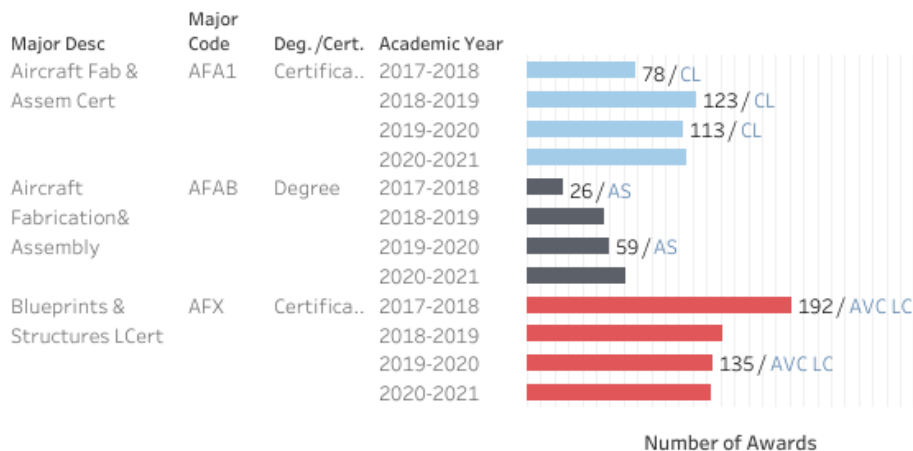
Enrollment and Number of Sections by *Modality* in AFAB

Instr. Method	2017-2018	2018-2019	2019-2020	2020-2021
Number of Sections	Other Indep Study	2		2
	Traditional	66	75	80
Enrollment	Other Indep Study	2		3
	Traditional	1,358	1,605	1,744

Enrollment and Number of Sections by *Location* in AFAB

Location	2017-2018	2018-2019	2019-2020	2020-2021	
Number of Sections	Lancaster	51	49	54	57
	Lancaster [Off Ca..				3
	Palmdale		4	3	19
	Palmdale [Off Ca..	17	22	25	4
Enrollment	Lancaster	979	1,003	1,085	1,141
	Lancaster [Off Ca..				56
	Palmdale		87	70	449
	Palmdale [Off Ca..	381	515	592	86

Number of Degrees/Certificates Awarded in Aircraft Fab & Assem Cert (AFA1), Aircraft Fabrication&Assembly (AFAB), Blueprints & Structures LCert (AFX)



FTEF by Contract Type, Part-time/Full-time Ratio, FTES, FTES/FTEF in AFAB

	Fall 2017	Fall 2018	Fall 2019	Fall 2020
PT (Adjunct) FTEF	7.9	6.4	10.4	11.1
FT (Regular) FTEF	1.6	4.2	3.4	2.2
FT (Overload) FTEF			0.6	1.0
TOTAL FTEF	9.5	10.6	14.4	14.3
PT/FT FTEF Ratio	4.9	1.5	3.1	5.0
FTES	135.9	148.0	172.0	160.7
FTES/FTEF Ratio	14.4	13.9	11.9	11.2
WSCH/FTEF Ratio	430.5	417.6	357.6	337.1

Click [here](#) to see AVC's Program awards dashboard



2020-2021 Program Review Report

Division/Area Name: CTE/Aeronautical Sciences & Technology/ AFMT	For Planning Years: 2022-2023
Name of person leading this review: Alfred Brubaker	
Names of all participants in this review: Aeronautical Sciences and Technology (AST) full-time and part-time faculty	

Part 1. Program Overview:

1.1. Briefly describe how the program contributes to the district <u>mission</u>
<p>The mission of the Airframe Manufacturing Technology Program (AFMT) is to meet the needs in the major aerospace industry for multi-skilled individuals in major processes of manufacturing.</p>
1.2. State briefly program highlights and accomplishments
<p>Governor Newsom signed AB 927 making bachelor's degrees in California Community Colleges permanent and it also expands colleges to begin offering additional bachelor's degrees. AVC's Bachelor of Science degree in Airframe Manufacturing Technology was created in response to industry demands and input.</p> <p>The Airframe Manufacturing Technology baccalaureate degree builds off two existing high quality, successful programs that have provided well trained employees to meet the needs in our communities for many years. By expanding these programs to include the opportunity to earn a baccalaureate degree, Antelope Valley College will now fill the need of local employers for a highly skilled lead worker in the same field and will provide a valuable opportunity for both our students and our community.</p> <p>The Airframe Manufacturing Technology program includes courses in disciplines in which Antelope Valley College already offers degrees and certificates: Aircraft Fabrication and Assembly and Aviation Airframe. Students must receive a minimum grade of "C" or better in all required core courses and the specific courses listed as program electives in order to qualify for the degree or certificate.</p> <p>Currently there is only one track, an evening track for this program we hope to expand to either a part-time or morning track in the next academic year.</p>
1.3. Check each <u>Institutional Learning Outcome (ILO)</u> supported by the program. Type an "X" if checkbox is unavailable.

X Communication	X Demonstrates analytical reading and writing skills including research, quantitative and qualitative evaluation and synthesis. X Demonstrates listening and speaking skills that result in focused and coherent communications
X Creative, Critical, and Analytical Thinking	X Uses intellectual curiosity, judgment and analytical decision-making in the acquisition, integration and application of knowledge and skills. X Solves problems utilizing technology, quantitative and qualitative information and mathematical concepts.
X Community/Global Consciousness	X Understands and applies personal concepts of integrity, ethics, self-esteem, lifelong learning, while contributing to the well-being of society and the environment. X Demonstrates an awareness and respect of the values of diversity, complexity, aesthetics and varied cultural expressions.
X Career and Specialized Knowledge	X Demonstrates knowledge, skills and abilities related to student educational goals, including career, transfer and personal enrichment.
1.4. Check each Educational Master Plan (EMP)/Strategic Plan Goal supported by the program. Type an "X" if checkbox is unavailable.	
<input type="checkbox"/> Goal 1: Commitment to strengthening institutional effectiveness measures and practices.	
<input type="checkbox"/> Goal 2: Increase efficient and effective use of resources: Technology; Facilities; Human Resources; Business Services.	
<input type="checkbox"/> Goal 3: Focus on utilizing proven instructional strategies that will foster transferable intellectual skills.	
<input type="checkbox"/> Goal 4: Advance more students to college-level coursework-Develop and implement effective placement tools.	
<input checked="" type="checkbox"/> Goal 5: Align instructional programs to the skills identified by the labor market.	

Part 2.A. Please provide the results of any internal and external environmental scan information you have gathered related to the program e.g. surveys, interviews, focus groups, advisory groups, licensure exam scores, job placement, State mandates, etc.:

Based on the 2020 & 2021 AST Advisory Committee meeting, the following suggestions were made:

Issues Discussed: Committee members agreed that the program needs to continue to update the curriculum as industry standards and practices change. Need to market the AFMT degree as not all sectors in the aviation industry know of the program. Need to emphasize that it is a STEM degree. Need to pursue ABET accreditation and articulation agreements with universities.

Action Taken: Update industry partners on graduating cohorts and continue to market the program and continue to meet with industry partners to discuss up-to-date standards and practices to be added to the curriculum.

Follow Up Items: Marketing, identify marketing venues and locate grant funding for marketing. Continue to pursue articulation agreements and ABET certification.

Part 2.B. Analyze the [program review data](#) (please see the program review data retrieval instructions and attach your program review data page with any other supporting documents), the above environmental scan information, and anything else related to your area to identify the program strengths, weaknesses, opportunities, & threats (SWOT):

Strengths	Currently the AFMT program is providing the necessary skills and knowledge to meet employer demands and requirements.
------------------	---

Weaknesses	<p>The number of AFMT Degrees awarded increased from 6 for the 2019-2020 academic year to 15 for the 2020-2021 academic year. The first cohort in 2018-2019 had 9 graduates. The AFMT program</p> <p>The AFMT program has been slowly expanding over the past 4 years due to two factors:</p> <ul style="list-style-type: none"> • Pilot status – which was removed October 2021 with AB 927 • Covid 19 – cohort 4 admitted 24 students which was prior to Covid 19, however enrollment dropped drastically during the 2020/2021 academic year.
Opportunities	<p>With the “pilot” status being removed from the bachelor degrees in the CCC system we are hopeful this will increase enrollment and opportunities for both marketing and increased Job opportunities in the aircraft manufacturing industry.</p> <p>Job opportunities in the industry continue to grow and students find employment or receive promotions before finishing the degree.</p>
Threats	Stabilizing support from the Chancellor’s Office.

Part 2.C. Review and comment on progress towards SLO/PLO/OO Outcomes Analysis (fka Action Plans):

The AFMT program’s full-time faculty member adjusts the curriculum to meet the current / future industry standards. The instructor continues work with industry partners and attend industry conferences / symposiums to ensure the program is meeting the requirements for employment and advanced positions.

Part 2.D. Review and comment on progress towards past program review goals:

The AFMT program utilizes both the AFAB labs at the AVC and Palmdale Technical Center as well as the AERO facility at Fox Field Airport. As discussed in the AFAB Program Review we are scheduled to renovate the AVC campus AFAB labs, which the AFMT program will utilize.

Progress has been made in terms of marketing students in the program. However, more marketing needs to occur especially after the signing of AB 927.

Part 3. Based on Part 2 above, please list program/area goals for 2021-2022:

Program/Area Goal #	Goal supports which ILO/PLO/SLO/OO?	Description of Goal	Steps to be taken to achieve goal?
#1 Facility	ILO #2 & #5 AFAB PLO Action Plan #1	Students need to be prepared with the proper knowledge and skills necessary to enter the workforce to be employable and accordingly need access to not only classroom theory but shop/lab work and projects. The AFMT utilizes the AFAB labs, and the AFAB program needs to renovate and improve on the existing labs at the AVC campus. In addition, new tooling and equipment needs to be	-Continue to work with advisory committee and recommendations to update labs -Continue to apply for grant funding to support lab renovations and new lab development for existing and new certificate programs.

		purchased as well as new labs for the new certificate programs.	
#2: AST Logistics Coordinator/Supervisor	AST Action Plan	AST Department receives numerous donations of materials/tooling and equipment that must be identified, picked up, distributed, and tracked and then coordinated for three locations. In addition, 4 new programs are being added to the department that will also have these needs.	-Request and develop a coordinator or supervisor position for the AST Department
#3:			

Part 4. Resource Requests that Support Program Needs (Based on above analyses and listed in priority order):

<i>Type of Resource Request</i>	<i>Summary of Request</i>	<i>New or Repeat Request</i>	<i>Amount of Request, \$</i>	<i>One-Time or Recurring Cost, \$</i>	<i>Contact's Name</i>
Faculty	2 Additional Faculty for new certificate programs	New	140,000	Recurring	Dr. Clinton
Classified Staff					
Technology					
Physical/Facilities	Additional Composite Labs (renovation or new) & Centralized Aeronautical Facility (renovation and added structures)	Repeat	900,000	One Time	Dr. Clinton
Supplies					
Professional Development					
Other	Project Supervisor	Repeat	70,000	Recurring	Dr. Clinton

****REQUIRED: After gathering the information above, fill out your RESOURCE REQUESTS to be shared with the Budget Committee: <https://www.surveymonkey.com/r/20-21ProgramReview>**

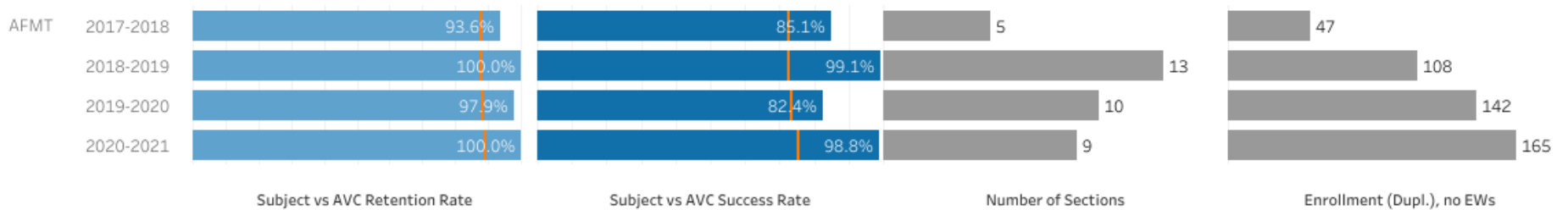
Part 5. Insert your Program Review Data here, as well as any other supporting data. (See Part 2.B above.)

Please Select **Subject** area (twice) and **Program Major(s)** to get your data --->

Select Subject AFMT Select Subject again AFMT Select Program Major(s) Airframe Manufacturing Tech (AFMT) Academic Year Multiple values



Retention, Success, Number of Sections, & Enrollment in AFMT (Total AVC rates are shown as | hover over to see data)



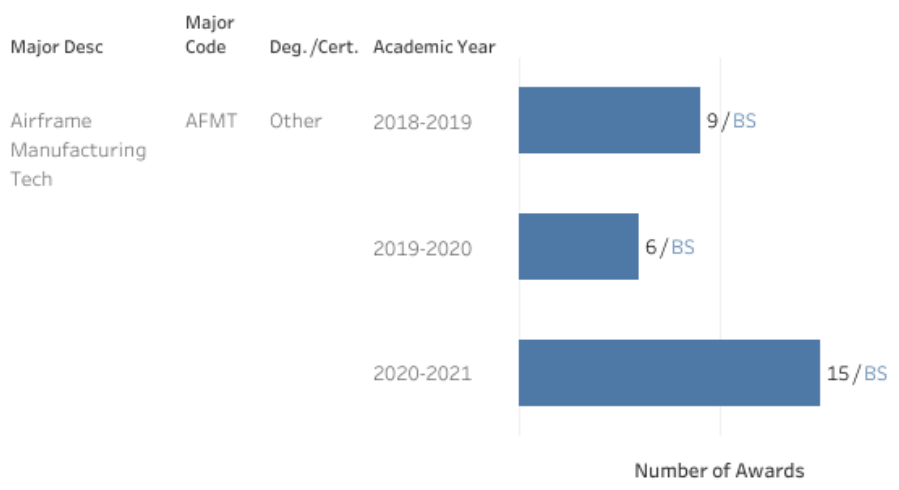
Enrollment and Number of Sections by **Modality** in AFMT

	Instr. Method	2017-2018	2018-2019	2019-2020	2020-2021
Number of Sections	Other Indep Study		2		
	Traditional	5	11	10	9
Enrollment	Other Indep Study		2		
	Traditional	47	106	142	165

Enrollment and Number of Sections by **Location** in AFMT

	Location	2017-2018	2018-2019	2019-2020	2020-2021
Number of Sections	Lancaster	5	13	10	6
	Lancaster [Off Ca..				2
	Palmdale				1
Enrollment	Lancaster	47	108	142	99
	Lancaster [Off Ca..				44
	Palmdale				22

Number of Degrees/Certificates Awarded in **Airframe Manufacturing Tech (AFMT)**



FTEF by Contract Type, Part-time/Full-time Ratio, FTES, FTES/FTEF in AFMT

	Fall 2017	Fall 2018	Fall 2019	Fall 2020
PT (Adjunct) FTEF	0.2	0.8	0.4	0.4
FT (Regular) FTEF		0.9	0.4	0.6
FT (Overload) FTEF			0.1	
TOTAL FTEF	0.2	1.7	1.0	1.0
PT/FT FTEF Ratio		0.9	1.0	0.7
FTES	1.2	5.3	5.5	13.5
FTES/FTEF Ratio	6.2	3.2	5.4	13.5
WSCH/FTEF Ratio	186.0	95.4	161.6	405.0

Click [here](#) to see AVC's Program awards dashboard



2020-2021 Program Review Report

Division/Area Name: CTE/Trades & Technologies/Advanced Manufacturing/ AM	For Planning Years: 2022-2023
Name of person leading this review: Jack B. Halliday	
Names of all participants in this review: Aeronautical Sciences and Technology (AST) full-time and part-time faculty	

Part 1. Program Overview:

1.1. Briefly describe how the program contributes to the district <u>mission</u>	
<p>The faculty and staff of the AM Program and AVC are dedicated to help prepare students CAD and CAM use in Industry. Students completing this program will have the necessary skillset to be employed in a variety of positions. Current Engineers / Engineering students will find this program helpful for advanced skill building. Technicians will use this program to strengthen their skill set and technical communication skills.</p> <p>The AM program offers three locally approved certificates in CAD -CAM, CAD – using Solid-works. and CAD using CAITIA 3D.</p>	
1.2. State briefly program highlights and accomplishments	
<p>Students can successfully complete the AM program and be awarded a certificate in one of three genre: CAM, CAD-Solid-works, an CAD CAITIA. This is a relatively new program that had its second semester offerings complicated with by a CO-vid 19 narrative. Low enrollment for the fledgling program left dropped classes and instructors without a course to teach. The planned courses format of traditional has been changed to Blended for an Emergency DE approval. These courses would need to be offered using a remote desktop, allowing students to remotely access licensed CAD software. Else they must be taught in our labs with licensed software available. Any highlights or accomplishments do not exist.</p>	
1.3. Check each <u>Institutional Learning Outcome (ILO)</u> supported by the program. Type an “X” if checkbox is unavailable.	
X Communication	<p>X Demonstrates analytical reading and writing skills including research, quantitative and qualitative evaluation, and synthesis.</p> <p>X Demonstrates listening and speaking skills that result in focused and coherent communications</p>
X Creative, Critical, and Analytical Thinking	<p>X Uses intellectual curiosity, judgment and analytical decision-making in the acquisition, integration, and application of knowledge and skills.</p> <p>X Solves problems utilizing technology, quantitative and qualitative information and mathematical concepts.</p>
X Community/Global Consciousness	<p><input type="checkbox"/> Understands and applies personal concepts of integrity, ethics, self-esteem, lifelong learning, while contributing to the well-being of society and the environment.</p> <p><input type="checkbox"/> Demonstrates an awareness and respect of the values of diversity, complexity, aesthetics and varied cultural expressions.</p>
X Career and Specialized	<p>X Demonstrates knowledge, skills and abilities related to student educational goals, including career, transfer and personal</p>

Knowledge	enrichment.
1.4. Check each Educational Master Plan (EMP)/Strategic Plan Goal supported by the program. Type an "X" if checkbox is unavailable.	
<input type="checkbox"/> Goal 1: Commitment to strengthening institutional effectiveness measures and practices.	
<input type="checkbox"/> Goal 2: Increase efficient and effective use of resources: Technology; Facilities; Human Resources; Business Services.	
<input type="checkbox"/> Goal 3: Focus on utilizing proven instructional strategies that will foster transferable intellectual skills.	
<input type="checkbox"/> Goal 4: Advance more students to college-level coursework-Develop and implement effective placement tools.	
<input checked="" type="checkbox"/> Goal 5: Align instructional programs to the skills identified by the labor market.	

Part 2.A. Please provide the results of any internal and external environmental scan information you have gathered related to the program e.g. surveys, interviews, focus groups, advisory groups, licensure exam scores, job placement, State mandates, etc.:

This program was developed in 2018-2018 and submitted by the Engineering faculty. The CTE Division does not have any advisory committee minutes or LMI data for this program.

From conversations with faculty involved in the development of this certificate, it had industry support. Currently there is demand for these skills, the courses were brought on during the COVID 19 shut down and this has caused the sections to be canceled due to low enrollment. The fall 2021 term is the first term that some of the classes have had enough enrollment to not be canceled.

Part 2.B. Analyze the program review data (please see the program review data retrieval instructions and attach your program review data page with any other supporting documents), the above environmental scan information, and anything else related to your area to identify the program strengths, weaknesses, opportunities, & threats (SWOT):

Strengths	The AM courses contain the necessary skills and knowledge to meet current employer demands and requirements for entry level positions.
Weaknesses	Marketing – we have not had the chance to really market the program to local industry partners, and it does not have a dedicated full-time instructor to help promote the program.
Opportunities	There are many job opportunities in aircraft manufacturing for this certificate. With adequate marketing and the hiring of a dedicated full-time faculty member this program will grow.
Threats	Canceling classes and not allowing the program to grow, especially with COVID 19 in the background.

Part 2.C. Review and comment on progress towards SLO/PLO/OO Outcomes Analysis (fka Action Plans):

Since classes have not been able to go due to low enrollment until this semester, we will have to assess the SLOs at the end of this term to determine and action plans.

However, we can determine that marketing and the need of a full-time faculty member will be part of the action plans to be developed.

Part 2.D. Review and comment on progress towards past program review goals:

The previous Program Review’s goals pertained to the purchase of software and remote access for students due to Covid 19 restrictions. Since Covid 19 restrictions have been lifted the need for remote access is no longer an issue. However, software updates are needed.

Part 3. Based on Part 2 above, please list program/area goals for 2021-2022:

<i>Program/Area Goal #</i>	<i>Goal supports which ILO/PLO/SLO/OO?</i>	<i>Description of Goal</i>	<i>Steps to be taken to achieve goal?</i>
#1 Marketing	ILO #2 & #5	This program needs to be marketed to industry partners.	-Continue to work with advisory committee and recommendations to promote program
#2: Full Time Faculty	ILO #2 & #5	A Full-time faculty member is needed for this program to reach its full potential to not only promote the program but to build industry connections and create a pipeline for students to gain employment.	-Request a full-time faculty member for this program.
#3:			

Part 4. Resource Requests that Support Program Needs (Based on above analyses and listed in priority order):

<i>Type of Resource Request</i>	<i>Summary of Request</i>	<i>New or Repeat Request</i>	<i>Amount of Request, \$</i>	<i>One-Time or Recurring Cost, \$</i>	<i>Contact's Name</i>
Faculty	1 full-time faculty	New	70,000	Recurring	Dr. Clinton
Classified Staff					
Technology					
Physical/Facilities					
Supplies					
Professional Development					
Other					

****REQUIRED: After gathering the information above, fill out your RESOURCE REQUESTS to be shared with the Budget Committee: <https://www.surveymonkey.com/r/20-21ProgramReview>**

Part 5. Insert your Program Review Data here, as well as any other supporting data. (See Part 2.B above.)

Please Select **Subject** area (twice) and **Program Major(s)** to get your data --->

Select Subject
AM

Select Subject again
AM

Select Program Major(s)
None

Academic Year
Multiple values



Retention, Success, Number of Sections, & Enrollment in AM (Total AVC rates are shown as | hover over to see data)



Enrollment and Number of Sections by *Modality* in AM

Instr. Method	2019-2020
Number of Sections	Traditional 1
Enrollment	Traditional 2

Enrollment and Number of Sections by *Location* in AM

Location	2019-2020
Number of Sections	Lancaster 1
Enrollment	Lancaster 2

Number of Degrees/Certificates Awarded in None

FTEF by Contract Type, Part-time/Full-time Ratio, FTES, FTES/FTEF in AM

	Fall 2019	Fall 2020
TOTAL FTEF	0	0

Click [here](#) to see AVC's Program awards dashboard



2020-2021 Program Review Report

Division/Area Name: CTE/ Trades & Technologies / AUTO	For Planning Years: 2022-2023
Name of person leading this review: Brian Kies	
Names of all participants in this review: Brian Kies	

Part 1. Program Overview:

1.1. Briefly describe how the program contributes to the district <u>mission</u>	
<p>The faculty and staff of the Antelope Valley College Automotive department are dedicated to providing the students with the knowledge and hands-on experience required to enter the automotive industry.</p> <p>Students planning on going into the automotive field usually pick one of the following paths:</p> <ul style="list-style-type: none"> A) Earn their automotive certificate. B) Earn an Associate degree. C) Transfer to get a Bachelor degree. <p>The Automotive Technology Program contributes to its mission statement by supporting students seeking technical education/training to enter the workforce.</p> <p>The AVC automotive program has established need industry partnerships with local high school automotive programs. This will help guide students and form pathways between high school and college, and guide students to successful careers.</p>	
1.2. State briefly program highlights and accomplishments	
<p>The Antelope Valley College Automotive department continues to have a high course retention rate of 84.5 percent, with a course success rate of 75.5 percent.</p> <p>Looking at the California Community College Strong Workforce statistics. The AVC automotive program has seen a drastic increase in the of median change in earnings for existing students. Among Strong Workforce Program students who exited incomes have increased 81 percent.</p>	
1.3. Check each <u>Institutional Learning Outcome (ILO)</u> supported by the program. Type an "X" if checkbox is unavailable.	
X Communication	<p>X Demonstrates analytical reading and writing skills including research, quantitative and qualitative evaluation and synthesis.</p> <p>X Demonstrates listening and speaking skills that result in focused and coherent communications</p>

X Creative, Critical, and Analytical Thinking	X Uses intellectual curiosity, judgment and analytical decision-making in the acquisition, integration and application of knowledge and skills. X Solves problems utilizing technology, quantitative and qualitative information and mathematical concepts.
X Community/Global Consciousness	X Understands and applies personal concepts of integrity, ethics, self-esteem, lifelong learning, while contributing to the well-being of society and the environment. X Demonstrates an awareness and respect of the values of diversity, complexity, aesthetics and varied cultural expressions.
X Career and Specialized Knowledge	X Demonstrates knowledge, skills and abilities related to student educational goals, including career, transfer and personal enrichment.
1.4. Check each <u>Educational Master Plan (EMP)/Strategic Plan Goal</u> supported by the program. Type an "X" if checkbox is unavailable.	
<input type="checkbox"/> Goal 1: Commitment to strengthening institutional effectiveness measures and practices.	
<input type="checkbox"/> Goal 2: Increase efficient and effective use of resources: Technology; Facilities; Human Resources; Business Services.	
<input type="checkbox"/> Goal 3: Focus on utilizing proven instructional strategies that will foster transferable intellectual skills.	
<input type="checkbox"/> Goal 4: Advance more students to college-level coursework-Develop and implement effective placement tools.	
<input checked="" type="checkbox"/> Goal 5: Align instructional programs to the skills identified by the labor market.	

Part 2.A. Please provide the results of any internal and external environmental scan information you have gathered related to the program e.g. surveys, interviews, focus groups, advisory groups, licensure exam scores, job placement, State mandates, etc.:

New automotive curriculum updates were recommended by the Antelope Valley College Automotive Advisory Committee to help increase student retention and increase skills for job placement.

The AVC automotive program has established need industry partnerships with local high school automotive programs. This will help guide students and form pathways between high school and college, and guide students to successful careers. By forming a partnership between local feeding schools this will increase the automotive program class number size and increase the number of successful completers. New advanced technologies to help the students become better career earners.

Increasing the number of enrollments in the program should also increase the number of student completers.

Part 2.B. Analyze the program review data (please see the program review data retrieval instructions and attach your program review data page with any other supporting documents), the above environmental scan information, and anything else related to your area to identify the program strengths, weaknesses, opportunities, & threats (SWOT):

Strengths	High student course retention rates. Curriculum has also been updated to better align with industry standards. Updates to vehicles, tools, and shop equipment have been performed to better align with industry standards. Shop equipment better reflects the environment students will work in.
Weaknesses	Low graduation/completer rates. Enrollment numbers beginning to decline. Low yearly section counts hurt graduation/completer rates. Fast full-time faculty turnaround when hired also hurts graduation/completer rates. Students need to be familiar with their teachers when they pick a degree program. In the last four years the automotive program has seen the loss of 3 full-time instructors, and these instructors only worked at AVC as instructors for only a few years. .

Opportunities	Currently there is a high demand for qualified automotive technicians and the demand is expected to rise. Ten new courses have been added to align the automotive program to national Automotive Service Excellence standards. This alignment should increase job opportunities and pay for course completers. The automotive program has been exploring opportunities with local government fleets to find job placement opportunities. With the new high school partnerships established this year pathways have been formed between feeder schools and the college.
Threats	With changing technologies more classes that target alternative fuel systems should be added to the automotive course catalog. The demand for technicians is drawing away students before completion of the program.

Part 2.C. Review and comment on progress towards SLO/PLO/OO Outcomes Analysis (fka Action Plans):

Based on the current student learning outcome reports. The automotive program is meeting its goals with a high percentage of positive learning outcomes. Students are first taught the theory in a lecture setting. Then the students have the opportunity to reinforce what they learned in the lecture in a real-world laboratory setting. This lecture knowledge combined with real-world hands-on experience helps the students see the positive benefits of first learning theory.

The hands-on experience allows the students to learn valuable experience needed by local employers. This hands-on experience and lab combination helps reinforce program learning outcomes. This is because students can see the positive benefits of what they have learned. The positive learning environment during lectures and laboratory helps with positive student outcomes, and this helps reinforce the Operational Outcomes of the program. We have also begun working towards streamlining our program certificate and degree. Instead of having two separate paths to graduate, we are creating one certificate which will create a streamlined path for graduation.

We have also cut down the number of courses being offered in the program to eliminate confusion, help increase enrollment, and help graduation rates.

Part 2.D. Review and comment on progress towards past program review goals:

When looking back at our goals for last year, we find that our program has been working and succeeding in goals #1 and #3. However, we have not made any progress on goal #2.

We are making progress in updating needed equipment and materials to meet or exceed the industry standards. This helps use with goal #3. Rapid growth in the automotive industry makes it difficult to keep up with needed equipment to properly teach. We are hoping that more local industry partnerships will help us with goals #1 and #2.

This year we have established new partnerships with local high school programs. This should help with goal #2. We are also in communications with local government fleets. We are hoping to provide job pathways for students with local fleets. We hope students can see the positive benefits of finishing their education. This should help us with goal #2.

Part 3. Based on Part 2 above, please list program/area goals for 2021-2022:

Program/Area Goal #	Goal supports which ILO/PLO/SLO/OO?	Description of Goal	Steps to be taken to achieve goal?
#1 Work experience.	ILO #4	To better prepare students before entering the workforce by making work experience/internship	#1. Create work experience course which meets school criteria. #2. Reach out to local businesses

		available to soon to be graduating students.	about possible internship.
#2: Enrollment.	ILO #3	Improve student enrollment of automotive technology program to help students find a career.	A. Continue to work with marketing on ways to advertise our program. B. Partnership with local feeder programs to increase program enrollments.
#3: Lab updates.	ILO #4	To provide students access to industry standard tools and equipment, help prepare them to work in a professional shop environment, and help them become more employable upon graduation.	#A. Use funding granted in Fall 2021 to continue updating the automotive lab. #B. Explore more funding opportunities to update remaining shop. #C. Update faculty training to utilize and instruct students in new tools and equipment.

Part 4. Resource Requests that Support Program Needs (Based on above analyses and listed in priority order):

<i>Type of Resource Request</i>	<i>Summary of Request</i>	<i>New or Repeat Request</i>	<i>Amount of Request, \$</i>	<i>One-Time or Recurring Cost, \$</i>	<i>Contact's Name</i>
Faculty					
Classified Staff					
Technology					
Physical/Facilities	Automotive Technology - New Class Development updates. With the new automotive classes running we need new equipment to support these classes. <ul style="list-style-type: none"> • New Brake system trainers. • New Tire pressure monitoring system trainers. • New Brake lathes • New Digital Multimeter Trainers • New Automotive Battery System Trainers 	New	95,000	One-time	Brian Kies

	• New Commercial grade lifts				
Supplies	Laboratory materials and supplies.	Repeat	20,000	Recurring	Brian Kies
Professional Development					
Other					

****REQUIRED: After gathering the information above, fill out your RESOURCE REQUESTS to be shared with the Budget Committee: <https://www.surveymonkey.com/r/20-21ProgramReview>**

Part 5. Insert your Program Review Data here, as well as any other supporting data. (See Part 2.B above.)

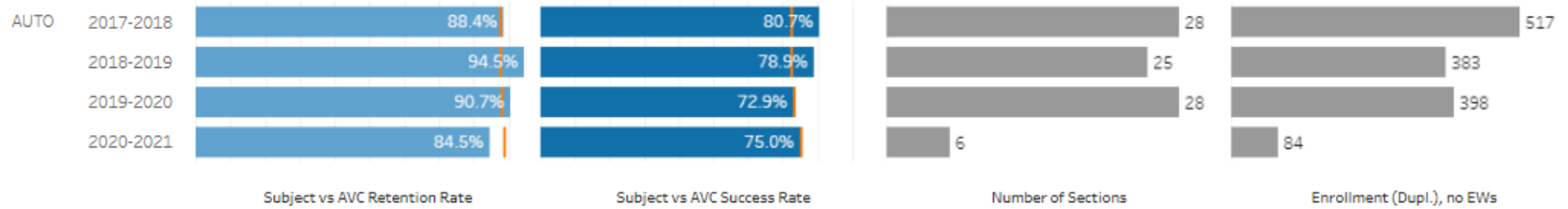
Program Review by IERP

Program Review Data | S&R by Demographic Groups | Equity | With EW | Grade Distribution | PT/FT, FTES/FTEF | **FTEF | Annual FTEF* | Access | Success & Retention

Please Select Subject area (twice) and Program Major(s) to get your data --->

Select Subject: AUTO | Select Subject again: AUTO | Select Program Major(s): (Multiple values) | Academic Year: (Multiple values)

Retention, Success, Number of Sections, & Enrollment in AUTO (Total AVC rates are shown as | hover over to see data)



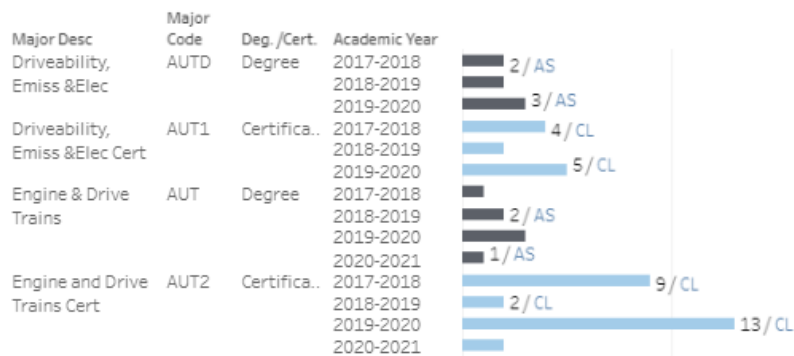
Enrollment and Number of Sections by Modality in AUTO

Instr. Method	2017-2018	2018-2019	2019-2020	2020-2021
Number of Sections				
Other Indep Study	1			
Traditional	27	25	28	6
Enrollment				
Other Indep Study	1			
Traditional	516	383	404	84

Enrollment and Number of Sections by Location in AUTO

Location	2017-2018	2018-2019	2019-2020	2020-2021
Number of Sections				
Lancaster	28	25	28	6
Enrollment				
Lancaster	517	383	404	84

Number of Degrees/Certificates Awarded in Driveability, Emiss & Elec (AUTD), Driveability, Emiss & Elec Cert (AUT1), Engine & Drive Trains (AUT) and 1 more



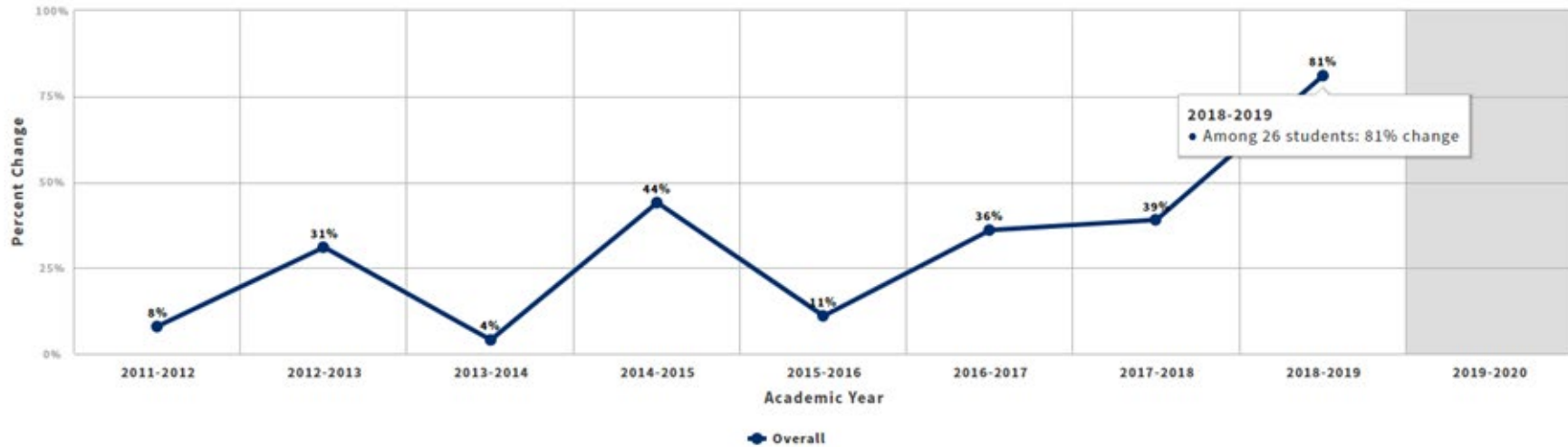
FTEF by Contract Type, Part-time/Full-time Ratio, FTES, FTES/FTEF in AUTO

	Fall 2017	Fall 2018	Fall 2019	Fall 2020
PT (Adjunct) FTEF	1.1	0.6	0.9	
FT (Regular) FTEF	2.2	2.1	2.2	1.0
FT (Overload) FTEF		0.2	0.3	
TOTAL FTEF	3.4	2.9	3.4	1.0
PT/FT FTEF Ratio	0.5	0.3	0.4	0.0
FTES	45.4	41.7	44.2	11.0
FTES/FTEF Ratio	13.4	14.5	12.8	11.0
WSCH/FTEF Ratio	402.8	433.8	384.7	329.7

Click here

Median Change in Earnings for SWP Exiting Students

Among Strong Workforce Program students who exited and who did not transfer to any postsecondary institution, median change in earnings between the second quarter prior to the beginning of the academic year of entry (for the first time ever as a non-Special Admit or return to any community college after an absence of one or more academic years) and the second quarter after the end of the academic year of exit from the last college attended



Source: Chancellor's Office Management Information System, Employment Development Department Unemployment Insurance Dataset, National Student Clearinghouse, CSU/UC Match

[Technical Definition](#)



2020-2021 Program Review Report

Division/Area Name: CTE/ Trades & Technology/ELEC (Electrical Technology)	For Planning Years: 2022-2023
Name of person leading this review: Kimberly Sennett	
Names of all participants in this review: Kimberly Sennett	

Part 1. Program Overview:

1.1. Briefly describe how the program contributes to the district mission	
<p>The faculty and staff of the Electrical Technology Program provide students with the hands-on training required for a technical skills certification, continuing education, professional development, and the opportunity to learn the fundamentals necessary to be well educated in an electrical discipline. Courses are provided for students who wish to complete a two-year degree or certificate, enter the workforce, or upgrade their skills. The ELEC program specifically contributes to the district mission by supporting students seeking technical education to enter the workforce or enhance their knowledge with an Electrical Technology Certificate & Degree.</p>	
1.2. State briefly program highlights and accomplishments	
<p>The Electrical Technology program has a State of California, Department of Industrial Relations, Division of Labor Standards, Electrician Certification Accreditation. Students completing the ELEC Certificate or Degree Program have found employment locally at Northrup Grumman, Lockheed Martin, and Edwards Air Force Base in the Facilities/Maintenance Department. The ELEC program continues to be a resource for the community to use as a hiring pool for entry-level electrical technicians with companies such as Magic Mountain, BYD, Metro, DWP, local school districts, as well as Los Angeles County agencies.</p>	
1.3. Check each Institutional Learning Outcome (ILO) supported by the program. Type an "X" if checkbox is unavailable.	
X Communication	<p>X Demonstrates analytical reading and writing skills including research, quantitative and qualitative evaluation and synthesis.</p> <p>X Demonstrates listening and speaking skills that result in focused and coherent communications</p>
X Creative, Critical, and Analytical Thinking	<p>X Uses intellectual curiosity, judgment and analytical decision-making in the acquisition, integration and application of knowledge and skills.</p> <p>X Solves problems utilizing technology, quantitative and qualitative information and mathematical concepts.</p>
<input type="checkbox"/> Community/Global Consciousness	<p><input type="checkbox"/> Understands and applies personal concepts of integrity, ethics, self-esteem, lifelong learning, while contributing to the well-being of society and the environment.</p> <p><input type="checkbox"/> Demonstrates an awareness and respect of the values of diversity, complexity, aesthetics and varied cultural expressions.</p>

X Career and Specialized Knowledge	X Demonstrates knowledge, skills and abilities related to student educational goals, including career, transfer and personal enrichment.
1.4. Check each <u>Educational Master Plan (EMP)/Strategic Plan Goal</u> supported by the program. Type an "X" if checkbox is unavailable.	
<input type="checkbox"/>	Goal 1: Commitment to strengthening institutional effectiveness measures and practices.
<input type="checkbox"/>	Goal 2: Increase efficient and effective use of resources: Technology; Facilities; Human Resources; Business Services.
<input type="checkbox"/>	Goal 3: Focus on utilizing proven instructional strategies that will foster transferable intellectual skills.
<input type="checkbox"/>	Goal 4: Advance more students to college-level coursework-Develop and implement effective placement tools.
<input checked="" type="checkbox"/>	Goal 5: Align instructional programs to the skills identified by the labor market.

Part 2.A. Please provide the results of any internal and external environmental scan information you have gathered related to the program e.g. surveys, interviews, focus groups, advisory groups, licensure exam scores, job placement, State mandates, etc.:

Based on the most recent ELEC Advisory Committee meeting, the following suggestions were made:

- 1) Program Updates & Curriculum Changes needed, Discussion Item: The Electrical Technology program has a State of California, Department of Industrial Relations, Division of Labor Standards, Electrician Certification Accreditation. Students completing the ELEC Certificate or Degree Program have successfully completed curriculum in electrical theory, electrical code requirements; residential, commercial & industrial wiring practices; program logic & motor control applications as well as preventative maintenance and troubleshooting skills which qualifies them for licensing. What current occupational competencies can be added or improved on to maintain quality industry needs? Would it be beneficial to add elective classes to the program for certification or credentials in OSHA Construction Safety, Arc Flash Safety, NIMS and or Go Green Renewables? Action Item: motion proposed more hands-on lab time with the tools of the trade, such as conduit benders, cordless drills, wire strippers and three phase systems would better prepare the students for employment opportunities. Motion proposed the program would benefit from adding OSHA 10, NFPA 70e and renewable certifications as electives or possible COR revisions to the program. Motion proposed to seek out "train the trainer" certification potentially through UCSD, ICC, CESCO or ehazard. A motion was passed to obtain faculty professional development for staff to become certified instructors in these areas, 8 yes votes. A motion was passed to move this item forward for funding/resource request, 8 yes votes.
- 2) New Technology & Applications needed, Discussion Item: The faculty and staff of the Electrical Technology Program provide students with the hands-on training required for a technical skill certification, continuing education, professional development, and the opportunity to learn the fundamentals necessary to be well educated in an electrical discipline. Over the course of the last year ELEC courses have been offered with online supplementation to the traditional face to face instruction with Cengage Learning products. This has led to the introduction of some computer-generated electrical simulation software's that can be used to enhance student learning outcomes virtually. Would it be beneficial to further research and incorporate new and innovative computer aided software into the ELEC program to enhance workforce skills? Action Item: motion proposed simulators would be a great addition to the program to supplement and reinforce key concepts. Simulators can also provide an opportunity to troubleshoot and work on equipment that due to how much space equipment may need may not be possible in limited lab space. Software such as Interplay, Business Industrial Network and Scada were offered as potential products. A motion was passed to support adding computer aided software to the program and request the funding/resources for this agenda item, 8 yes votes.

- 3) Facilities Update Lecture/Lab Space, Discussion Item: In the Spring of 2022 the Electrical Technology Program will be moving to a new lecture/lab space in the new Discovery Building. We will vacate lecture/lab space TE7-123 and potentially remain in computer room TE7-103. The program will also lose access to the adjoining outdoor space to TE7-123 that is used for outdoor projects. It was originally recommended that the program have two dedicated lecture/lab spaces as most classes contain vital hands-on competencies as well as equipment led discussions. The last years covid restrictions has further reinforced the need for students to work individual projects, as well as group projects, which require more individualized tools and equipment, as well as space to store them. Action Items: motion proposed that lab space is essential for the development of qualified students in the electrical field. The need for space for our students and program to grow is vital and must continue to be addressed. A motion was proposed to seek out an addition of space with facilities to utilize the outside areas between the old building and the new, for workforce training. An overhead cover with lighting, power stations, and perhaps some open exterior walls, overhead trusses etc., to practice running conduit, pulling wire, and working on scaffolds and ladders. A motion was proposed to apply for funding/resources to properly set up the new lab space from the get-go. To include workstations, supplies, and storage. To hire additional staff, including a dedicated TA, to help with maximizing the use of the new facility space with the addition of more nontraditional class days and times. A motion was passed to increase the number of days and times that classes are offered to fully utilize the new space, hire additional staff to teach on additional days/times, seek additional lecture/lab space scheduling, and move all items forward for funding/resource request, 8 yes votes.
- 4) Funding Grants, Instructional Supplies & Lab Equipment (Perkins, Strong Workforce, Prop 20, Block Grant), Discussion Item: Block Grant and Prop funding allowed the Electrical Technology Program to purchase new trade specific safety related tools, diagnostic meters, laptops, equipment and teaching supplies. This greatly enhanced and encouraged a clean, conducive, well-organized environment for student success. The situational change created a firm foundation for improving student participation and performance in directly related course student learning outcomes & program learning outcomes. All SLO's and PLOs are being met at introduced, developed and mastery levels throughout the program which speaks to the programs educational success rate. It is the ELEC program's goal to continue student success for outcomes in analyzing, evaluating and repairing various residential, commercial, industrial & motor control systems, while continuing to build on the use of safe shop and work practice/industry standards acquired. The importance of secure and reliable funding allows for the appropriate targeting of course/program level outcomes, planning and application in advancing CTE programs. Action Items: motion proposed the program procure funding for innovative as well as industry standard instructional supplies and equipment to keep our students relevant such as 30 kVA three phase transformers with taps, Hampden Engineering Troubleshooting Motor Control Modules, Hampden Engineering Dissectible Motors, Future Tek Inc. Motor Control and Motor Control Troubleshooting Modules, as well as previous agenda items. Motion passed to request program support through district operating funds, CalWORKs Block Grant for lab equipment and Prop 20 funding for instructional supplies, 8 yes votes. Motion passed to apply/request for funding for updated lecture/lab equipment & supplies with Perkins and Strong Workforce resources as needed for agenda items to keep current with technology and produce a stronger workforce, 8 yes votes.

Part 2.B. Analyze the program review data (please see the program review data retrieval instructions and attach your program review data page with any other supporting documents), the above environmental scan information, and anything else related to your area to identify the program strengths, weaknesses, opportunities, & threats (SWOT):

Strengths	The Electrical Technology Program provides necessary coursework for State licensing and remains current on Accreditation curriculum. 2020-2021 success rates in ELEC courses remains steady at 84.5% vs. 74.8% AVC annual rates. All SLO and PLO achievement targets are being met with student completion in competencies trending on the high side of grading averages. The number of sections offered, ELEC degrees and ELEC certificates awarded in 2020-2021 return to average numbers consistent with 2018- 2019, although this is a slight
------------------	---

	decrease from 2019-2020, it reflects consistent pre-covid 19 numbers with a trend towards increasing numbers post pandemic restrictions.
Weaknesses	The 2020-2021 retention rates in ELEC courses are at 85.8% vs. 88.6% AVC annual retention rates, which is consistent with 2018-2019 averages for the program, with a 2% decrease from the retention rate gain we experienced in 2019-2020. The program lost students when it shifted from traditional face to face instruction to online emergency instruction. This shift also effected the degrees/certificates awarded and the number of sections being offered. The most concerning decrease in number to monitor is student enrollment which decreased by roughly 105 students for the year. This could be due to the number of students having to take entry level jobs to financially help their families. The decrease in student population has been seen campus wide.
Opportunities	Job opportunities in the electrical field show consistent growth, fostering a need to form relationships with local businesses for student work experience and job placement. According to the CA EDD Labor Market Projections of Employment by Occupation the County of Los Angeles has projected annual job opening in the following Electrical fields: General Electricians 1643, Construction Trade and Extraction Supervisors 1456, Security and Fire Alarm Installers 261, Electrical Helpers 251, Electrical Power-Line Installers and Repairers 118
Threats	Students leave the program to work for entry level jobs without completing a certificate or degree. Need to counsel students on the importance of a degree for future improved earnings and career advancement. The program would also benefit from a financial investment by the college in a professional marketing firm for all the CTE programs as society shifts to more traditional trade driven career choices.

Part 2.C. Review and comment on progress towards SLO/PLO/OO Outcomes Analysis (fka Action Plans):

It was the 2020-2021 Electrical Technology Programs action plan to build on student success for outcomes in analyzing, evaluating, and repairing various residential, commercial, industrial & motor control systems, while continuing to build on the use of safe shop and work practice/industry standards acquired from our 2019-2020 action plan. 2020-2021 Block Grant and Prop funding allowed the Electrical Technology Program to purchase new trade specific equipment and teaching supplies to provide students with more hands-on experience with relevant industry components. This greatly enhanced and supported individual as well as group projects which in turn improved student success rates on competencies. The addition of new equipment and supplies created a firm foundation for improving student participation and performance in directly related Course SLO's & Program PLO's. The importance of secure and reliable funding allows for the appropriate targeting of course/program level outcomes, planning and application in advancing CTE programs. All Electrical Technology Program SLO's and PLOs are being met at introduced, developed and mastery levels throughout the program which speaks to the programs educational success rate. It is the ELEC faculties 2021-22 plan to continue to build on student success rates in outcomes as we transition to a new environment with unknown challenges.

Part 2.D. Review and comment on progress towards past program review goals:

#1 Improve Retention/Completion of Program Certification & Degree: The staff have been working with an on location CTE counselor in a time-sharing capacity to offer students better access to services provided by counseling without having to go to the student services building. Faculty are encouraged to council students on the importance of prescribed program completion. Students still trend to leave the program before completion of their program once employment is attained. The covid-19 pandemic resulted in the reduction of student enrollment as well as section offerings. This item will remain on the 2021-2022 goal list.

#2 Marketing & Outreach: In direct partnership with State Licensing the Electrical program greatly enhances education as a viable pathway to employment. According to the CA EDD Labor Market Projections of Employment by Occupation the County of Los Angeles still has an ever present need to fulfill job openings in the industry. The program would benefit from a financial investment by the college in a professional marketing firm for all the CTE programs as society shifts to more traditional trade driven career choices. This item will remain on the 2021-2022, goal list.

#3 Work Experience/Job Placement: The Electrical Technology program continues to be a direct source of employees to local contractors, maintenance groups as well as county agencies. The need to foster apprentice style work experience is continually growing. The faculty and CTE job placement specialist continue to explore these community relationships and develop a guided pathway to employment. This item will remain on the 2021-2022, goal list.

#4 Update Instructional Supplies and Lab Equipment Consistent with Industry Standards and Innovative Technology: 2020-2021 Block Grant and Prop funding allowed the Electrical Technology Program to purchase new trade specific equipment and teaching supplies to provide students with more hands-on experience with relevant industry components. This greatly enhanced and supported individual as well as group projects which in turn improved student success rates on competencies. The addition of new equipment and supplies created a firm foundation for improving student participation and performance in directly related Course SLO's & Program PLO's. It is the ELEC faculties 2021-22 plan to continue to build on student success rates in outcomes as we transition to a new environment with unknown challenges. We will also be acting on Advisory Committee suggestions to procure resources needed to keep students current with technology and produce a stronger workforce. This item will remain on the 2021-2022 goal list.

Part 3. Based on Part 2 above, please list program/area goals for 2021-2022:

<i>Program/Area Goal #</i>	<i>Goal supports which ILO/PLO/SLO/OO?</i>	<i>Description of Goal</i>	<i>Steps to be taken to achieve goal?</i>
#1 Improve Retention/Completion of Program Certification & Degree	ILO #1, 2 & 4, EMP #1 & 3	Increase number of students retained in the program, completing a certificate, and getting a degree.	Faculty to work with current CTE counselor and express to students the importance of striving for educational completion.
#2 Marketing & Outreach	ILO #1, 2 & 4, EMP #2 & 5	Increase the number of incoming students by promoting the program as a viable pathway to employment.	Faculty to work with Marketing and Outreach to generate new community exposure through flyers, webpage, and possible marquee space.

#3 Work Experience/Job Placement	ILO #1, 2 & 4, EMP #3 & 5	Utilize work experience/job placement to help students gain job skills and prepare them for full-time employment.	Faculty to work with current CTE job placement specialist to find local businesses for possible apprenticeship/employment placement
#4 Update Instructional Supplies and Lab Equipment: Consistent with Industry Standards and Innovative Technology.	ILO # 2 & 3, EMP #2 & 5, PLO #2 & 4	Continue student success in program outcomes for Analyzing, evaluating, and repairing various residential, commercial, industrial & motor control systems.	Request consistent/reliable district operating funds: Cal Works Block Grant for lab equipment, Prop 20 funding for instructional supplies and supplement with Perkins and Strong Workforce resources as needed.

Part 4. Resource Requests that Support Program Needs (Based on above analyses and listed in priority order):

<i>Type of Resource Request</i>	<i>Summary of Request</i>	<i>New or Repeat Request</i>	<i>Amount of Request, \$</i>	<i>One-Time or Recurring Cost, \$</i>	<i>Contact's Name</i>
Faculty	Counselor	Repeat	On Staff Already	Recurring	Patty King
Classified Staff	Marketing	Repeat	On Staff Already	Recurring	Lisa Leary
Technology	Cal Works Block Grant Equipment Request	Repeat	\$20000	Recurring	Kimberly Sennett
Physical/Facilities		Repeat			
Supplies	Prop 20 Instructional Supplies Request	Repeat	\$18000	Recurring	Kimberly Sennett
Professional Development					
Other	Job Placement	Repeat	On Staff Already	Recurring	Sara Rivas

****REQUIRED: After gathering the information above, fill out your RESOURCE REQUESTS to be shared with the Budget Committee: <https://www.surveymonkey.com/r/20-21ProgramReview>**

Part 5. Insert your Program Review Data here, as well as any other supporting data. (See Part 2.B above.)

Please Select **Subject** area (twice) and **Program Major(s)** to get your data --->

Select Subject
ELEC

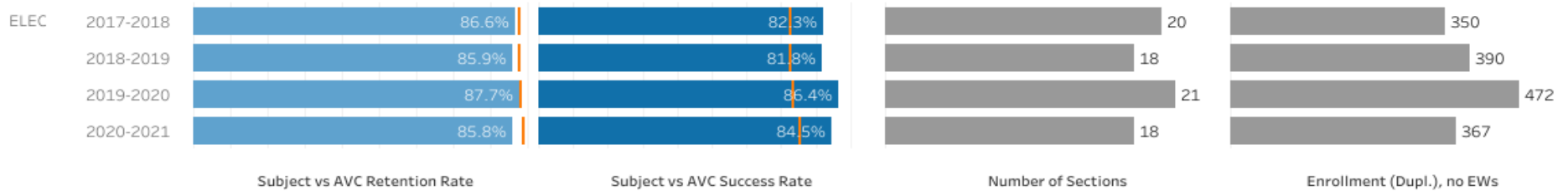
Select Subject again
ELEC

Select Program Major(s)
Multiple values

Academic Year
Multiple values



Retention, Success, Number of Sections, & Enrollment in ELEC (Total AVC rates are shown as | hover over to see data)



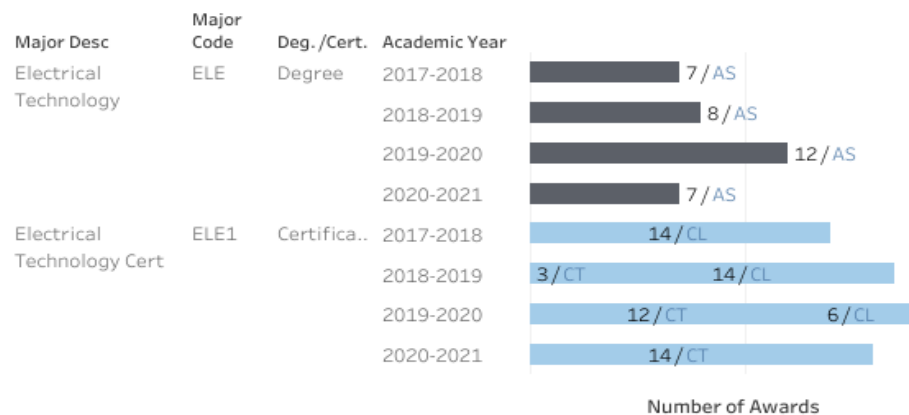
Enrollment and Number of Sections by **Modality** in ELEC

	Instr. Method	2017-2018	2018-2019	2019-2020	2020-2021
Number of Sections	Traditional	20	18	21	18
	Enrollment	350	390	489	367

Enrollment and Number of Sections by **Location** in ELEC

	Location	2017-2018	2018-2019	2019-2020	2020-2021
Number of Sections	Lancaster	20	18	21	18
	Enrollment	350	390	489	367

Number of Degrees/Certificates Awarded in Electrical Technology (ELE) & Electrical Technology Cert (ELE1)



FTEF by Contract Type, Part-time/Full-time Ratio, FTES, FTES/FTEF in ELEC

	Fall 2017	Fall 2018	Fall 2019	Fall 2020
PT (Adjunct) FTEF	0.9	1.3	1.5	1.5
FT (Regular) FTEF	1.2	1.0	1.3	1.3
FT (Overload) FTEF	0.3	0.3		
TOTAL FTEF	2.5	2.5	2.8	2.8
PT/FT FTEF Ratio	0.8	1.3	1.2	1.2
FTES	22.8	33.4	38.0	27.6
FTES/FTEF Ratio	9.2	13.2	13.6	9.9
WSCH/FTEF Ratio	276.8	396.0	407.5	295.9

Click [here](#) to see AVC's Program awards dashboard



2020-2021 Program Review Report

Division/Area Name: CTE/Trades & Technologies/ ELTE (Electronics Technology)	For Planning Years: 2022-2023
Name of person leading this review: Rick Motawakel	
Names of all participants in this review: Rick Motawakel	

Part 1. Program Overview:

1.1. Briefly describe how the program contributes to the district mission

The mission of the Electronics Technology program is to provide a comprehensive and technical education to a diverse community of learners to prepare the student for employment as an electronic technician. Electronics Technology program takes pride in providing a quality, hands-on education to produce and develop top quality engineering technicians and electronic technicians. Our goal is our student success in today's fast growing technical and aerospace industry. Upon graduation, the student has a broad reach in the electronics field and can be a positive member of the work force in the following fields: aerospace, automotive, engineering, communications, robotics, to name a few. Electronics degrees provide the students with the tools to be successful and continue their education or career upon graduation as immediate productive members of the work force.

1.2. State briefly program highlights and accomplishments

The Electronics Technology program ELTE major enrollment growth occurred in the last four years. All core courses were updated to industry standard. A new course was developed based on input from the advisory committee. The new course that was developed was ELTE 145 Acceptability of Electronic Assemblies and this course was being offered in the spring 2016. In the past four years the enrolment in this course was always over capacity of the class. This course needs special tools and parts for students to learn and prepared to the industry standards. The department start offering a new certificate for this program and was approved by the chancellor's office. The certificate is Avionics Technology certificate. Students can complete three courses for this certificate in one semester. They can get hired in the aerospace and automotive industry. This certificate was created by the industry request and need. Three adjunct faculties were hired for the program due to major enrollment growth. Recruiting students from AVC intermediate math classes for the program was accomplished. Making contacts with the employers in the aerospace industry to accomplish the industry need for electronics/avionics technician. ELTE program hosted guest speakers from Northrop Grumman, FAA, Edwards Air Force Base and NASA to address students understanding for their expectation and hiring procedures. Throughout the school years, Field Trips were taken to FAA, Edwards Air Force Base and NASA. Each outing explores an aerospace technical shops and historical significance and provides a firsthand experience with experts who did help the students see what often remains hidden in plain sight. Participants in these 25-person groups get a unique field guide of the facility.

The ELTE program keeps the same schedule for the Fall and Spring semester offered on a regular rotation so that students can complete the program within three-semester time frame.

- The program provides internship with the industry for the students to get experience in their field of study.

- The adjunct instructors are hired from the industry so they can provide up to date information and training for the students.
- The program has a 95% job placement for the graduates
- All courses that were taught during the four years conducted assessment on SLOs
- Enrollment is higher in the program than last four years
- Number of sections offered are higher than last four years
- Retention, Success, Number of Sections, and Enrolment in ELTE is higher than AVC in the last four years
- FTEF/FTES and WSCH/FTEF is higher than last two years

1.3. Check each Institutional Learning Outcome (ILO) supported by the program. Type an "X" if checkbox is unavailable.

X Communication	<input type="checkbox"/> Demonstrates analytical reading and writing skills including research, quantitative and qualitative evaluation and synthesis. <input type="checkbox"/> Demonstrates listening and speaking skills that result in focused and coherent communications
X Creative, Critical, and Analytical Thinking	<input type="checkbox"/> Uses intellectual curiosity, judgment and analytical decision-making in the acquisition, integration and application of knowledge and skills. <input type="checkbox"/> Solves problems utilizing technology, quantitative and qualitative information and mathematical concepts.
X Community/Global Consciousness	<input type="checkbox"/> Understands and applies personal concepts of integrity, ethics, self-esteem, lifelong learning, while contributing to the well-being of society and the environment. <input type="checkbox"/> Demonstrates an awareness and respect of the values of diversity, complexity, aesthetics and varied cultural expressions.
X Career and Specialized Knowledge	<input type="checkbox"/> Demonstrates knowledge, skills and abilities related to student educational goals, including career, transfer and personal enrichment.

1.4. Check each Educational Master Plan (EMP)/Strategic Plan Goal supported by the program. Type an "X" if checkbox is unavailable.

<input type="checkbox"/> Goal 1: Commitment to strengthening institutional effectiveness measures and practices.
<input type="checkbox"/> Goal 2: Increase efficient and effective use of resources: Technology; Facilities; Human Resources; Business Services.
<input type="checkbox"/> Goal 3: Focus on utilizing proven instructional strategies that will foster transferable intellectual skills.
<input type="checkbox"/> Goal 4: Advance more students to college-level coursework-Develop and implement effective placement tools.
<input checked="" type="checkbox"/> Goal 5: Align instructional programs to the skills identified by the labor market.

Part 2.A. Please provide the results of any internal and external environmental scan information you have gathered related to the program e.g. surveys, interviews, focus groups, advisory groups, licensure exam scores, job placement, State mandates, etc.:

Aerospace is a building up at Palmdale, Edwards AFB, and all-over Southern California. With the new projects job growth is expanding and the need for electronics students will increase as it has. Our graduating students in the past two semesters have already started working for these companies, and future students will have the same opportunity for the next 10-15 years. In addition, the technical industry is growing at an exponential rate and more electronics students will be required in all fields to include communications, engineering, data, and many other fields. Our advisory groups from the industry met last October. The group suggested to have more graduates because they need more qualified technicians in the industry.

We need new equipment (soldering irons, lights, signal generators, etc.) have provided additional enhancements to the program. Some of this equipment is replacing older equipment but some of it provides new capabilities for the program. Advisory committee feedback has been very positive. The students graduating from this program are doing very well in their jobs. The industry is satisfied and happy with our graduates working for them.

This program needs more consumables, and the industry is willing to help and donate more parts for the students. Students requested more consumables for labs. Additional consumables were purchased enabled students more hands-on time with labs. Industry is asking for shorter program completion. They need more qualified technicians for the industry. Students graduating from this program get hired by Edwards Air Force Base, NASA Armstrong Flight Research Center, Mojave Air and Space Port, U. S, Air Force Plant 42, and the U. S. Navy's Naval Air Weapons Station China Lake, and all the major aviation and aerospace prime contractor as well as hundreds of specialty subcontractors who make the complex parts and components that go into aircraft. Students from this program become the workforce that has extensive experience and deep knowledge of advanced materials, precision manufacturing and aircraft assembly. The program provides experienced, adaptable workers with modern skills for more accommodating business rules and regulations.

Part 2.B. Analyze the [program review data](#) (please see the program review data retrieval instructions and attach your program review data page with any other supporting documents), the above environmental scan information, and anything else related to your area to identify the program strengths, weaknesses, opportunities, & threats (SWOT):

Strengths	<ul style="list-style-type: none"> • The program has a 95% job placement for the graduates • All courses that were taught during the four years conducted assessment on SLOs • Enrollment is higher in the program than last four years • Number of sections offered are higher than last four years • Retention, Success, Number of Sections, and Enrolment in ELTE is higher than AVC in the last four years • FTEF/FTES and WSCH/FTEF is higher than last two years
Weaknesses	<p>Number of degrees and certificates awarded in electronics technology was higher than last year but lower than 2015-2016 years. The lack of lab assistant for the program and only one fulltime faculty for the program to keep up the maintenance for the equipment. The enrolment is low due to pandemic shutdown and the fear of coved 19 keeping students from the classroom and laboratories.</p>
Opportunities	<p>The program is growing but we need two full time instructors. The program needs lab assistant and a second fulltime faculty. We can't get any adjunct faculty to teach the morning classes do to working in their regular jobs. The enrolment was up before pandemic, and the program was growing because of the aerospace companies in the community are hiring. The aerospace companies will be hiring about 5500 new workers in the near future.</p>
Threats	<p>Cutting low enrolment classes for the program. Not having a significant teaching staff member for the program to grow. Not having lab technician to help the instructor with keeping equipment up and running for the student use.</p>

Part 2.C. Review and comment on progress towards SLO/PLO/OO Outcomes Analysis (fka Action Plans):

The new trainers are providing outstanding outcomes. All our core courses are now being taught using the new trainers. Student feedback has been extremely positive, and the student success rate is expected to dramatically improve in the next few years. Safety has always been, and will remain, an extremely high priority for the program. We continually improve our safety training with the goal of providing the industry with technically competent and safety conscious electronics technicians. The new computers and monitors have provided a vast increase in computing and teaching/learning capabilities. The next major tech refresh should be when we relocate to our new facilities. The new equipment (soldering irons, lights, signal generators, etc.) have provided additional enhancements to the program. Some if this equipment is replacing older equipment but some of it provides new capabilities for the program. Student feedback has been very positive.

Part 2.D. Review and comment on progress towards past program review goals:

Adding NIDA trainers for all classes provided computer-based training (CBT) and hands on circuit testing and troubleshooting. The previous labs were built round kits that had to be assembled which were time consuming, frustrating to the students, and less than average success rate. Although they met the

requirements, more time in building and troubleshooting was used than actual lab times. NIDA trainers are a combination of CBT and already fashioned circuit cards that provide more time on experiments versus building labs. The CBT also provides additional learning resources the student can use from home, and then accomplish the labs. NIDA directly increased the SLO scores for students in all classes and provided a major modern-day improvement in learning. The consumables purchase for the ELTE 145 enabled students to have several hands-on opportunities to build harnesses in labs and extra consumables for mistakes and learning practices. This improved class lab significantly and contributed to the students SLO growth over the semesters. This is a continuing process, as each class requires more consumables to accomplish tasks. Expected SLO improvement will continue as the class evolves around modern technology upgrades.

The program is in the process of expanding. To meet industry needs (local and national), we are introducing 3 new concentrations. The basic core competencies remain (safety, AC/DC, digital and communications) and we are adding concentrations in Robotics, General Electronics and Avionics. Although the new trainers have been implemented successfully, the students like them and the student success rate is expected to increase, two main problems remain. There is a very steep learning curve for the instructors and the new trainers do not cover all the courses taught at AVC (like Microprocessors or Microcontrollers).

The environment is much better with the new air and heating system for our two classes. The students are comfortable, and they can learn the material provided to them much better. This will help in the retention rates as well.

Part 3. Based on Part 2 above, please list program/area goals for 2021-2022:

Program/Area Goal #	Goal supports which ILO/PLO/SLO/OO?	Description of Goal	Steps to be taken to achieve goal?
#1	PLO/SLO	Form relationship with businesses	We are still using very outdated microprocessor lab kit/trainers for Microprocessors. Student learning is not as robust as it should be. Several options are being considered.
#2	PLO/SLO	The additional aid in the lab environment will help with hands on practical and insuring a safe working environment in the lab.	There is a desperate need for a lab assistant to organize, maintain and track our inventory for test and lab equipment and supply parts. Currently, instructors are trying to maintain these valuable resources but instructor time is very valuable and it's accomplished on a voluntary basis. Control, organization and maintenance of our lab assists would enhance student learning and enable to instructors to better focus on teaching the classes.
#3	ILO/OO	Relocation	We will be relocating all of our equipment and supplies into our new facilities in a few years. This will provide and outstanding opportunity to reanalyze our current and future equipment needs and implement action plans to surplus or

			purchase whatever is required.
#4	SLO/PLO	The additional aid in the lab environment will help with hands on practical and insuring a safe working environment in the lab.	There is a desperate need for a lab assistant to organize, maintain and track our inventory for test and lab equipment and supply parts. Currently, instructors are trying to maintain these valuable resources but instructor time is very valuable and it's accomplished on a voluntary basis. Control, organization and maintenance of our lab assists would enhance student learning and enable to instructors to better focus on teaching the classes.

Part 4. Resource Requests that Support Program Needs (Based on above analyses and listed in priority order):

<i>Type of Resource Request</i>	<i>Summary of Request</i>	<i>New or Repeat Request</i>	<i>Amount of Request, \$</i>	<i>One-Time or Recurring Cost, \$</i>	<i>Contact's Name</i>
Faculty	There is currently an expansion of the need for qualified electronics technicians in the Antelope Valley and on the national level; electronic technicians are in high demand. We are working very closely with the FAA, the United States Air Force and other government organizations, as well as, contractors (Northrup, Lockheed, Boeing, etc.) to fill their needs. AVC's electronics programs is expected to expand very rapidly in the next few years and an additional teaching staff member will be required.	Repeat Request	\$65k	Recurring Cost	Rick Motawakel
Classified Staff	There is a desperate need for a lab assistant to organize, maintain and track our inventory for test and lab equipment and supply parts. Currently, instructors are trying to maintain these valuable resources but instructor time is very valuable	Repeat Request	\$35k	Recurring Cost	Rick Motawakel

	and it's accomplished on a voluntary basis. Control, organization and maintenance of our lab assists would enhance student learning and enable to instructors to better focus on teaching the classes. Other California community colleges utilize students in this capacity.				
Technology	Once a way forward has been planned and coordinated for the introduction of a new course (in microcontrollers) or a comprehensive reorganization of the current Microprocessor class, equipment needs to be purchased and the course material updated accordingly.	Repeat Request	\$175k	One-Time	Rick Motawakel
Physical/Facilities	The program is in the process of expanding. To meet industry needs (local and national), we are introducing 3 new concentrations. The basic core competencies remain (safety, AC/DC, digital and communications) and we are adding concentrations in Robotics, General Electronics and Avionics	Repeat Request	\$150k	One time	Rick Motawakel
Supplies	Evaluate, relocate and purchase equipment for the new facility	Repeat Request	\$200k	One time	Rick Motawakel
Professional Development	Faculty need to participate in seminars to bring up to date information for the department	New	\$50k	One Time	Rick Motawakel
Other					

****REQUIRED: After gathering the information above, fill out your RESOURCE REQUESTS to be shared with the Budget Committee: <https://www.surveymonkey.com/r/20-21ProgramReview>**

5. Insert your Program Review Data here, as well as any other supporting data. (See Part 2.B above.)

Please Select **Subject** area (*twice*) and **Program Major(s)** to get your data ---->

Select Subject
ELTE

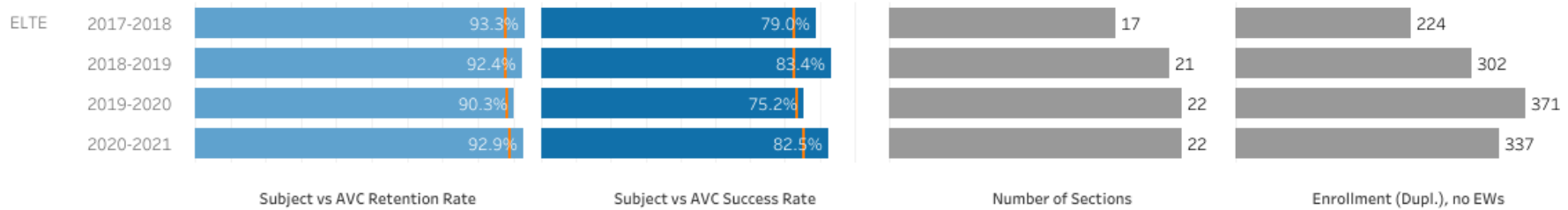
Select Subject again
ELTE

Select Program Major(s)
Multiple values

Academic Year
Multiple values



Retention, Success, Number of Sections, & Enrollment in ELTE (Total AVC rates are shown as | *hover over to see data*)



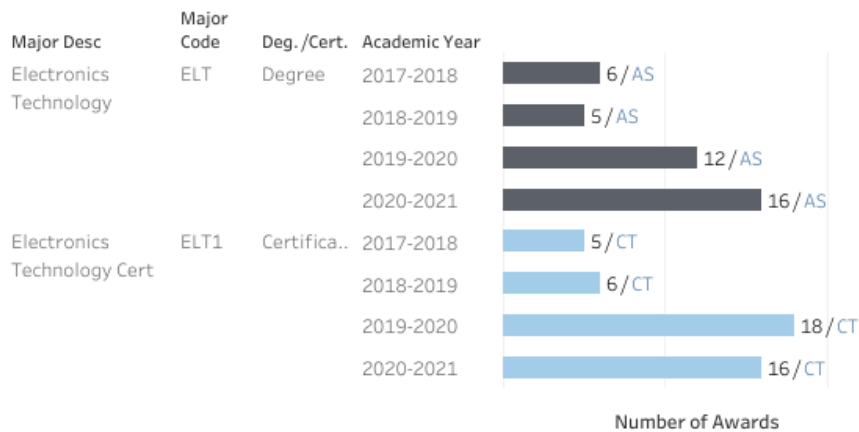
Enrollment and Number of Sections by *Modality* in ELTE

Instr. Method	2017-2018	2018-2019	2019-2020	2020-2021
Number of Sections	Other Indep Study	1	1	1
	Traditional	17	20	21
Enrollment	Other Indep Study	3	1	3
	Traditional	224	299	396

Enrollment and Number of Sections by *Location* in ELTE

Location	2017-2018	2018-2019	2019-2020	2020-2021
Number of Sections	Lancaster	17	19	22
	Palmdale	2		
Enrollment	Lancaster	224	276	397
	Palmdale	26		

Number of Degrees/Certificates Awarded in Electronics Technology (ELT) & Electronics Technology Cert (ELT1)



FTEF by Contract Type, Part-time/Full-time Ratio, FTES, FTES/FTEF in ELTE

	Fall 2017	Fall 2018	Fall 2019	Fall 2020
PT (Adjunct) FTEF	1.9	2.0	2.2	2.4
FT (Regular) FTEF	0.9	1.3	1.2	1.2
TOTAL FTEF	2.7	3.2	3.4	3.6
PT/FT FTEF Ratio	2.2	1.5	1.8	2.0
FTES	19.5	30.2	33.7	33.3
FTES/FTEF Ratio	7.1	9.3	9.9	9.3
WSCH/FTEF Ratio	212.5	280.3	295.8	277.8

Click [here](#) to see AVC's Program awards dashboard



2020-2021 Program Review Report

Division/Area Name: CTE/Technical Trades Department / IMTA	For Planning Years: 2022-2023
Name of person leading this review: Joseph Owens	
Names of all participants in this review:	

Part 1. Program Overview:

1.1. Briefly describe how the program contributes to the district mission	
<p>The faculty and staff of the IMTA Program and AVC provide students with the hands-on training required to enter into the Industrial Manufacturing Technician Journey Workers Industry with the cooperation of the Sheet Metal, Air, Rail, Transportation (SMART) Workers Local Union #105 out of Kern and Northern LA Counties. The IMTA is a local certificate program meeting the requirements of the Department of Workforce Development and Bureau of Apprenticeship Standards (DWD/BAS). To be recognized as a Journey Worker, an apprentice must successfully complete “related instruction” (RI) and “on the job learning” (OJL) requirements of the apprenticeship. Workforce programs and job preparation courses (non-degree applicable) contribute to the educational and economic wellbeing of the community. IMTA Courses are provided for students who wish to complete a certificate to enter the workforce or upgrade their skill level. The IMTA program specifically contributes to the district mission by supporting students seeking technical education to enter the workforce or enhance knowledge with an Industrial Manufacturing Technician Apprentice Certificate</p>	
1.2. State briefly program highlights and accomplishments	
<p>Students successfully completing the IMTA program and awarded a Certificate. Students hired by BYD are working locally at the plant in Lancaster and living in our community. Students from the union enter our program as part of a cooperative effort with BYD and the Union Local #105, to employ and train the workforce.</p>	
1.3. Check each Institutional Learning Outcome (ILO) supported by the program. Type an “X” if checkbox is unavailable.	
X Communication	<p>X Demonstrates analytical reading and writing skills including research, quantitative and qualitative evaluation and synthesis.</p> <p>X Demonstrates listening and speaking skills that result in focused and coherent communications</p>
X Creative, Critical, and Analytical Thinking	<p>X Uses intellectual curiosity, judgment and analytical decision-making in the acquisition, integration and application of knowledge and skills.</p>

	X Solves problems utilizing technology, quantitative and qualitative information and mathematical concepts.
<input type="checkbox"/> Community/Global Consciousness	<input type="checkbox"/> Understands and applies personal concepts of integrity, ethics, self-esteem, lifelong learning, while contributing to the well-being of society and the environment. <input type="checkbox"/> Demonstrates an awareness and respect of the values of diversity, complexity, aesthetics and varied cultural expressions.
X Career and Specialized Knowledge	X Demonstrates knowledge, skills and abilities related to student educational goals, including career, transfer and personal enrichment.
1.4. Check each <u>Educational Master Plan (EMP)/Strategic Plan Goal</u> supported by the program. Type an "X" if checkbox is unavailable.	
<input type="checkbox"/> Goal 1: Commitment to strengthening institutional effectiveness measures and practices.	
<input type="checkbox"/> Goal 2: Increase efficient and effective use of resources: Technology; Facilities; Human Resources; Business Services.	
<input type="checkbox"/> Goal 3: Focus on utilizing proven instructional strategies that will foster transferable intellectual skills.	
<input type="checkbox"/> Goal 4: Advance more students to college-level coursework-Develop and implement effective placement tools.	
X Goal 5: Align instructional programs to the skills identified by the labor market.	

Part 2.A. Please provide the results of any internal and external environmental scan information you have gathered related to the program e.g. surveys, interviews, focus groups, advisory groups, licensure exam scores, job placement, State mandates, etc.:

(COMING)

Part 2.B. Analyze the program review data (please see the program review data retrieval instructions and attach your program review data page with any other supporting documents), the above environmental scan information, and anything else related to your area to identify the program strengths, weaknesses, opportunities, & threats (SWOT):

Strengths	Classes are Full! 97% retention and 94% success rate
Weaknesses	None identified at this point (New program with only 2 years running.)
Opportunities	We have doubled the course offerings form the first year, running two cohorts with a semester between start dates. Attrition due to CoVid has caused a reduction in enrollment, as distancing, and testing mandates have affected attendance at work and scheduling.
Threats	The course relies on BYD for students as it relies on Local #105 the SMART Union.

Part 2.C. Review and comment on progress towards SLO/PLO/OO Outcomes Analysis (fka Action Plans):

Curriculum and hands on experience provided by employer (BYD) and the Local #105 union.

Part 2.D. Review and comment on progress towards past program review goals:

This is the second program review. There were no real goals established during the first review. Aside from needing an additional instructor, which is still a vital need for the program. We are running two cohorts in parallel and only have one instructor. He has taught overload for the last two semesters, and is presently still doing so, as NO new adjunct instructor has been hired.

Part 3. Based on Part 2 above, please list program/area goals for 2021-2022:

<i>Program/Area Goal #</i>	<i>Goal supports which ILO/PLO/SLO/OO?</i>	<i>Description of Goal</i>	<i>Steps to be taken to achieve goal?</i>
#1	Additional Instructional faculty	Hire an adjunct position	Advertise and interview
#2			
#3			

Part 4. Resource Requests that Support Program Needs (Based on above analyses and listed in priority order):

<i>Type of Resource Request</i>	<i>Summary of Request</i>	<i>New or Repeat Request</i>	<i>Amount of Request, \$</i>	<i>One-Time or Recurring Cost, \$</i>	<i>Contact's Name</i>
Faculty	Need an additional adjunct instructor – the instructor we have is working more than 10 LHE (Still – for the second year in a row)	Repeat			Joseph Owens / William Solorzano
Classified Staff					
Technology					
Physical/Facilities	Presently working out of Palmdale. It would be nice to work a cohort in on the Lancaster Campus. Probably won't happen until we hire an additional instructor.	Repeat			Joseph Owens / William Solorzano
Supplies					
Professional Development	This program is taught entirely by Adjunct instructors that need instruction on our Canvas LMS	Repeat			Joseph Owens / William Solorzano
Other					

****REQUIRED: After gathering the information above, fill out your RESOURCE REQUESTS to be shared with the Budget Committee: <https://www.surveymonkey.com/r/20-21ProgramReview>**

Part 5. Insert your Program Review Data here, as well as any other supporting data. (See Part 2.B above.)

Please Select **Subject** area (twice) and **Program Major(s)** to get your data --->

Select Subject
IMTA

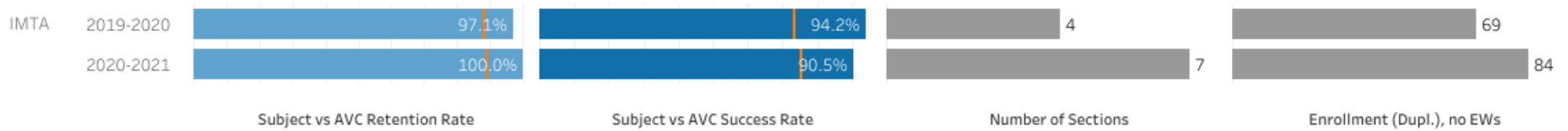
Select Subject again
IMTA

Select Program Major(s)
Indust Manuf Tech Apprent (IMTA)

Academic Year
Multiple values



Retention, Success, Number of Sections, & Enrollment in IMTA (Total AVC rates are shown as | hover over to see data)



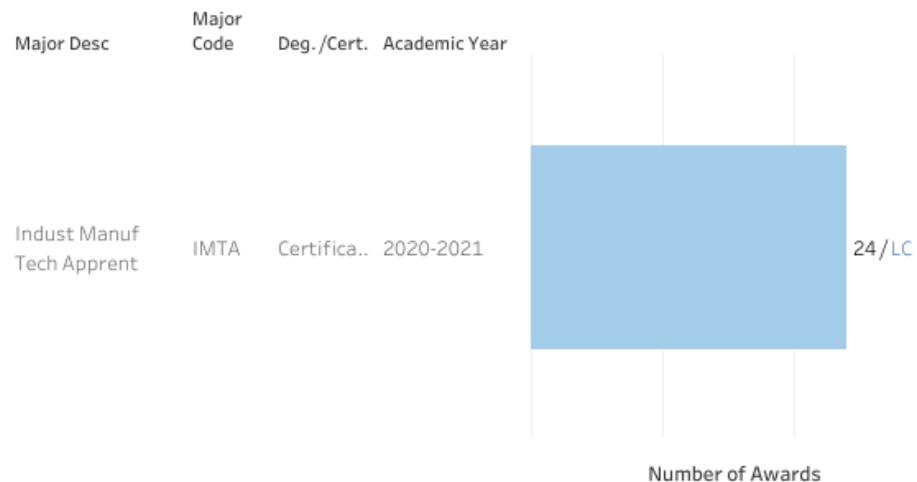
Enrollment and Number of Sections by *Modality* in IMTA

Instr. Method	2019-2020	2020-2021
Number of Sections	4	7
Enrollment	73	84

Enrollment and Number of Sections by *Location* in IMTA

Location	2019-2020	2020-2021
Number of Sections		
Lancaster		2
Palmdale	4	5
Enrollment		
Lancaster		20
Palmdale	73	64

Number of Degrees/Certificates Awarded in Indust Manuf Tech Apprent (IMTA)



FTEF by Contract Type, Part-time/Full-time Ratio, FTES, FTES/FTEF in **IMTA**

	Fall 2019	Fall 2020
PT (Adjunct) FTEF	0.4	1.1
TOTAL FTEF	0.4	1.1
FTES	4.1	5.6
FTES/FTEF Ratio	10.3	5.1
WSCH/FTEF Ratio	307.5	152.2

Click [here](#) to see AVC's Program awards dashboard



2020-2021 Program Review Report

Division/Area Name: CTE/Technical Trades Department / WELD	For Planning Years: 2022-2023
Name of person leading this review: Travis Lee	
Names of all participants in this review: Travis Lee	

Part 1. Program Overview:

1.1. Briefly describe how the program contributes to the district mission	
The Welding program contributes to the district mission as a career technical program. It offers “essential career technical instruction” in the welding and fabrication field. The program provides students with the skills and knowledge necessary to secure long-term employment in high wage, high-skilled careers. In addition, the program provides the local industry with skilled entry level welding careers.	
1.2. State briefly program highlights and accomplishments	
Students completing the Welding Certificate or Degree Program, have the ability to obtain many welding certification’s including their L.A City Certification from the Los Angeles Department of Building and Safety. Students have found employment locally in the welding industry due to the collaboration with the Local 433 Ironworkers Union, Smart Local 105 Sheet Metal Union, And other local welding industry partners in the Antelope Valley. Students have also found employment working in L.A. for various construction companies working with structural steel, and other variants of welding and fabrication.	
1.3. Check each Institutional Learning Outcome (ILO) supported by the program. Type an “X” if checkbox is unavailable.	
X Communication	<input type="checkbox"/> Demonstrates analytical reading and writing skills including research, quantitative and qualitative evaluation and synthesis. <input checked="" type="checkbox"/> Demonstrates listening and speaking skills that result in focused and coherent communications
X Creative, Critical, and Analytical Thinking	<input type="checkbox"/> Uses intellectual curiosity, judgment and analytical decision-making in the acquisition, integration and application of knowledge and skills. <input checked="" type="checkbox"/> Solves problems utilizing technology, quantitative and qualitative information and mathematical concepts.
X Community/Global Consciousness	<input type="checkbox"/> Understands and applies personal concepts of integrity, ethics, self-esteem, lifelong learning, while contributing to the well-being of society and the environment. <input checked="" type="checkbox"/> Demonstrates an awareness and respect of the values of diversity, complexity, aesthetics and varied cultural expressions.
X Career and Specialized Knowledge	<input checked="" type="checkbox"/> Demonstrates knowledge, skills and abilities related to student educational goals, including career, transfer and personal enrichment.
1.4. Check each Educational Master Plan (EMP)/Strategic Plan Goal supported by the program. Type an “X” if checkbox is unavailable.	
<input type="checkbox"/> Goal 1: Commitment to strengthening institutional effectiveness measures and practices.	

- Goal 2:** Increase efficient and effective use of resources: Technology; Facilities; Human Resources; Business Services.
- Goal 3:** Focus on utilizing proven instructional strategies that will foster transferable intellectual skills.
- Goal 4:** Advance more students to college-level coursework-Develop and implement effective placement tools.
- Goal 5:** Align instructional programs to the skills identified by the labor market.

Part 2.A. Please provide the results of any internal and external environmental scan information you have gathered related to the program e.g. surveys, interviews, focus groups, advisory groups, licensure exam scores, job placement, State mandates, etc.:

Short Term Occupational Projections (2020-2022)
<https://projectionscentral.org/Projections/ShortTerm>

<u>Area</u>	<u>Title</u>	<u>Base</u>	<u>Projected</u>	<u>Change</u>	<u>%Change</u>	<u>Avg. Annl Openings</u>
<u>California</u>	<u>Welders, Cutters, Solderers, and Brazers</u>	27,000	28,900	1,900	7.0	4,000

Long Term Occupational Projections (2018-2028)
<https://projectionscentral.org/Projections/LongTerm>

<u>Area</u>	<u>Title</u>	<u>Base</u>	<u>Projected</u>	<u>Change</u>	<u>%Change</u>	<u>Avg. Annl Openings</u>
<u>California</u>	<u>Welders, Cutters, Solderers, and Brazers</u>	33,000	34,000	1,000	3	3,770

- Based on the 2021 Welding Advisory Committee meeting, the following suggestions were made:
 Issues Discussed:
 1. New Course Development: Discussed the industry needs for an aerospace welding certification course.
 2. Changes to weld 145 to better meet industry needs.
 3. Welding Program growth to meet new local industry needs for productive job placement of students. Also, the need for more welding staff.
 4. The need for Faculty certifications such as Certified Welding Inspector Licensing.

Industry partners: The program needs to continue to update the curriculum as industry standards and practices change. Partners to discuss up-to-date standards and practices to be added to the curriculum.

Action Taken: Research has begun on the equipment requested by the industry and how to implement it into the current welding lab area and curriculum. The process of curriculum changes to better meet current industry needs has started.

Follow Up Items: For continuing local industry job placement, effective changes to the welding curriculum and equipment to meet industry needs. Local industry partners continue to hire students from the Welding program and our job placement rate has been climbing steadily

Part 2.B. Analyze the [program review data](#) (please see the program review data retrieval instructions and attach your program review data page with any other supporting documents), the above environmental scan information, and anything else related to your area to identify the program strengths, weaknesses, opportunities, & threats (SWOT):

Strengths	Partnerships with local industry such as the Local 433 Ironworkers Union and other industry partners has grown enrollment
------------------	---

	<p>numbers and job placement numbers for the students graduating the welding program. Retention and graduation rates in the Welding program/courses have increased over the past year.</p> <p>The Antelope Valley College Welding Program is now a certified L.A City welding testing agency to allow students to leave with a professional certification after graduation which broadens job opportunities for students.</p>
Weaknesses	<p>Due to COVID 19 the welding program goal #4 has been put behind schedule from last year's program review and has carried over to this year. The program had to be adjusted to run according to the circumstances at the time.</p> <p>We still need a second full time instructor and a second instructional assistant, to increase student success.</p>
Opportunities	<p>Job opportunities in the Welding Industry continue to grow. We are always working to form relationships with local businesses to foster work experience and job placement. The continued growth and expansion of the welding program will help advance these relationships.</p>
Threats	<p>Students leave the program for work without completing a certificate or degree. Need to counsel students on the importance of a degree for future better earnings. The students not being able to meet industry demands and they look elsewhere for entry-level welders.</p>

Part 2.C. Review and comment on progress towards SLO/PLO/OO Outcomes Analysis (fka Action Plans):

We have made progress toward incorporating new industry practices and standards into the welding curriculum, adopting new standards for grading and tracking of student learning outcomes and success. The Retention rates of students has increased to 95.9% and the number of associate degrees has doubled from last year.

Part 2.D. Review and comment on progress towards past program review goals:

The welding Program has strengthened its partnership with local labor Unions and other local industry partners such as the Ironworkers Local 433 and Delta Scientific and has achieved 100 percent job placement for students that apply for both locations. Retention and graduation rates continue to increase. Course expansion and curriculum revisions are currently under development to meet local industry demands. The welding program has also increased the number of incoming students by promoting the program as a viable career path, via high schools and the use of other marketing tools.

Part 3. Based on Part 2 above, please list program/area goals for 2021-2022:

Program/Area Goal #	Goal supports which ILO/PLO/SLO/OO?	Description of Goal	Steps to be taken to achieve goal?
#1 Improve Retention/Completion of Program Certification & Degree	ILO #1, 2 & 4 EMP #1 & 3	Increase number of students retained in the program, completing a certificate and getting a degree	Faculty to work with current CTE counselor and express to students the importance of striving for educational completion.
#2 Human Resources	ILO #1, 2 & 4 EMP #2 & 5	To better increase student success and expansion of the program. Hiring a second full time instructor and two instructional assistants.	Collaborate with the Dean of CTE to create and post the appropriate job openings.
#3 Job Placement	ILO #1, 2 & 4 EMP #3 & 5	Increase the number of students obtaining Jobs in the local industry.	Strengthen collaboration with local industry partners such as the local 433 Ironworkers Union as well as other industry

			partners. Create a cohesive relationship with the MC3 program.
#4 Improve the quality and quantity of hands-on training achieved in the Welding Program courses. (The time with hands on practical applications is critical to build confidence, gain experience and improve dexterity)	ILO #1, 2 & 4 EMP #2 & 3	Increase student's success necessary for taking the LA City and National Welding certification exams and job readiness	Change weld 145 into three separate classes that would include Flux Cored Arc, Gas Metal Arc and Gas Tungsten Arc Welding to the curriculum as separate courses. This would foster students to gain a more fulfilled education for multiple welding certifications and to meet industry job placement standards. Create an Aerospace welding certification course to meet the current local industry demand.

Part 4. Resource Requests that Support Program Needs (Based on above analyses and listed in priority order):

<i>Type of Resource Request</i>	<i>Summary of Request</i>	<i>New or Repeat Request</i>	<i>Amount of Request, \$</i>	<i>One-Time or Recurring Cost, \$</i>	<i>Contact's Name</i>
Faculty	Second Full time Instructor	Repeat	70,00.00 est	One-Time	Travis Lee, Dr. Maria Clinton
Classified Staff	Two Instructional Assistants one during the day and one at night	Repeat	50,00.00 est	One-Time	Travis Lee, Dr. Maria Clinton
Technology					
Physical/Facilities					
Supplies	Material and updated equipment for student success to meet industry standards.	New	200,00.00 est	One-Time	Travis Lee
Professional Development	Training and professional licensing to keep up with current industry standards and techniques.	Repeat	5,000.00	Recurring	Travis Lee
Other					

****REQUIRED: After gathering the information above, fill out your RESOURCE REQUESTS to be shared with the Budget Committee: <https://www.surveymonkey.com/r/20-21ProgramReview>**

Part 5. Insert your Program Review Data here, as well as any other supporting data. (See Part 2.B above.)

Please Select **Subject** area (twice) and **Program Major(s)** to get your data --->

Select Subject
WELD

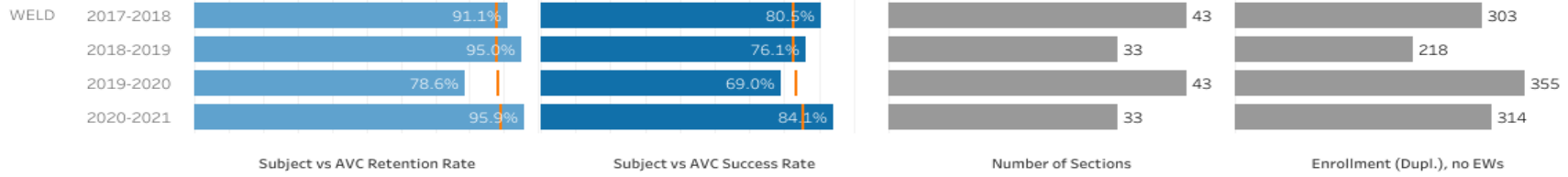
Select Subject again
WELD

Select Program Major(s)
Multiple values

Academic Year
Multiple values



Retention, Success, Number of Sections, & Enrollment in WELD (Total AVC rates are shown as | hover over to see data)



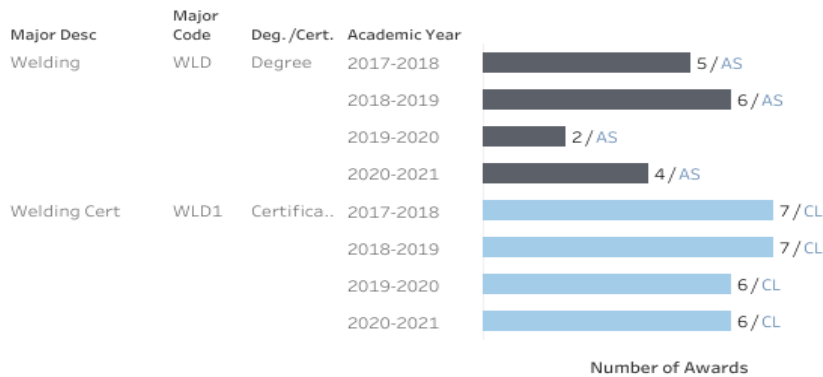
Enrollment and Number of Sections by Modality in WELD

	Instr. Method	2017-2018	2018-2019	2019-2020	2020-2021
Number of Sections	Other Indep Study	1	5	1	2
	Traditional	41	28	42	31
	Work Experience	1			
Enrollment	Other Indep Study	1	18	1	5
	Traditional	301	200	395	310
	Work Experience	1			

Enrollment and Number of Sections by Location in WELD

	Location	2017-2018	2018-2019	2019-2020	2020-2021
Number of Sections	Lancaster	43	33	43	33
Enrollment	Lancaster	303	218	396	315

Number of Degrees/Certificates Awarded in Welding (WLD) & Welding Cert (WLD1)



FTEF by Contract Type, Part-time/Full-time Ratio, FTES, FTES/FTEF in WELD

	Fall 2017	Fall 2018	Fall 2019	Fall 2020
PT (Adjunct) FTEF	0.9	0.9	1.3	0.4
FT (Regular) FTEF	1.1	1.1	1.1	0.6
FT (Overload) FTEF	0.2	0.2	0.2	0.2
TOTAL FTEF	2.2	2.2	2.6	1.2
PT/FT FTEF Ratio	0.8	0.8	1.2	0.7
FTES	19.4	18.9	23.8	18.6
FTES/FTEF Ratio	9.0	8.8	9.2	15.5
WSCH/FTEF Ratio	269.6	262.5	274.5	465.8

Click [here](#) to see AVC's Program awards dashboard

