Fall 2024 Program Review Report | Instructional Areas

Division/Area Name: Aerospace, Industrial Arts and Applied Technologies /Aeronautical Sciences & Technology/Advanced Manufacturing (AM)	**For Planning Years: 2025-2026**
Name of person leading this review: Alfred Brubaker	
Names of all participants in this review: Alfred Brubaker	

The faculty and staff of the AM Program and AVC are dedicated to helping 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. The AM program offers three locally approved certificates in CAD - CAM, CAD – using Solid-works. and CAD using CAITIA 3D.

Part 2A: Analyze the program review data (retrieval instructions), including equity data and any internal/external environmental scan information (e.g., surveys, interviews, focus groups, advisory groups, licensure exam scores, & job placement) to identify the program Strengths, Opportunities & Aspirations:

Use the following questions to guide your analysis:

Overall (Use the *Success & Retention* and *Program Award* tabs to inform your analysis)

- What are the success and retention rates for your discipline? Did they decrease or increase in the last year?
- What are the trends for the number of awards granted? Are the number of awards going up or down?

Equity (Use the *Success & Retention* tab including S&R by Ethnicity and Gender data to inform your analysis)

- Which ethnic / gender student groups complete their courses at the highest rates?
- Which ethnic / gender student groups experience the largest gaps when compared to the highest-performing group? Analyze the trends across the last review period. If no equity gaps are present, please reflect on the strategies that are working in the *Strengths and Accomplishments* section.

Strengths and Accomplishments: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The AM courses contain the necessary skills and knowledge to meet current employer demands and requirements for entry level positions. The program is new and the trend that the data is showing is that success and retention rates are improving from last academic year. This program could use a dedicated full-time instructor to help improve the program, student success rates and equity gaps.

Opportunities and Challenges: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

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.

Aspirations: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The world's leading aeronautical programs that continues to meet industry demands for qualified aviation technicians in a variety of aviation fields.

Part 2B: (Required for CTE) External Data: Advisory Committee Recommendations & Labor Market Data

☐ N/A 2024 Advisory meeting is scheduled for 11/21/2024

Insert Advisory Committee Recommendations here (Please do not insert complete meeting minutes, but just recommendations from the advisory committee.)

Projections of Employment by Occupation, 2020 - 2030

Selections:

TOP Code(s):

095600 Manufacturing and Industrial Technology

Geography: California

Includes: All California Counties

Annual Job Openings by Occupation

SOC Code	Occupation Title (Linked to "Occupation Profile")	2020 Employment	Annual Job Openings (1)
173026	Industrial Engineering Technicians	2,900	3,070
	Total	2,900	3,070

(1) Total Job Openings are the sum of new jobs from growth plus net replacements. Annual job openings are total job openings divided by the number of years in the projection period.

(2)This occupation has been suppressed due to confidentiality.

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Save or View in Excel | Back to Occupation List | New Search

Part 2C: Review and comment on progress toward past Course Improvement Plans

List your past **Course Improvement Plans** (CIPs) and progress toward meeting those plans.

Past Course Improvement Plans	Progress Made
New full-time faculty	No progress made

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

List your past program review goals and progress towards those goals.

Purchase Software	Purchased software and licenses.

Part 3: Based on Part 2 above, please list program/area goals:

Program /Area Goal #	Goal Supports which:				ESP Goal Primarily Supported:	Goal (Student-focused)	Steps to be taken to achieve the goal?	Measure of Success (How would you know you've achieved your goal?)
	ILO	PLO	SLO	OO				
#1	ILO 4. Career and Specialized Knowledge				Goal #4 Vision: Being more future-thinking, agile, innovative, and proactive.	Grow the program	Continue to work with advisory committee and recommendations to promote program	When classes are full
#2	ILO 4. Career and Specialized Knowledge				Goal #5 Education: Expansion of offerings and effective course scheduling.	Grow the program	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.	When a new full-time faculty is hired
#3	Choose ILO				Choose an item.			
#4	Choose ILO				Choose an item.			

Part 4: Resource Requests that Support Program Goals (Based on the above analysis, please use the following space to document resource requests)

Type of Resource Request	Summary of Request	Which of your Program/area goals (Part 3) does this request support?	New or Repeat Request	Amount of Request, ($)	One-Time or Recurring Cost, ($)	Contact's Name
Faculty	Full-time Faculty needed for the program to improve	All	Repeat	$100,000	Recurring	Alfred Brubaker
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	

Part 5: Insert your Program Review Data here and any other supporting data. (See Part 2A above).

Required:

- Success & Retention tab
- Program Awards tab-None

Optional:

- Other supporting data/information

Success and Retention

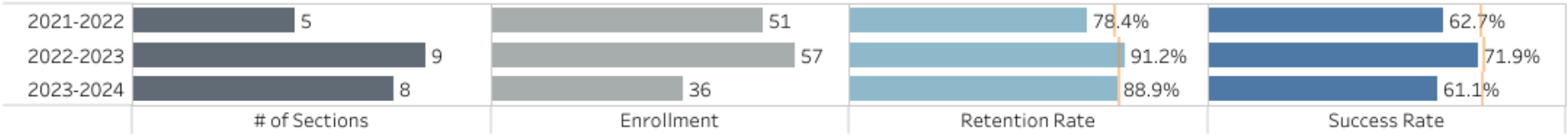
Select Academic Year: Multiple values

Select Subject: AM

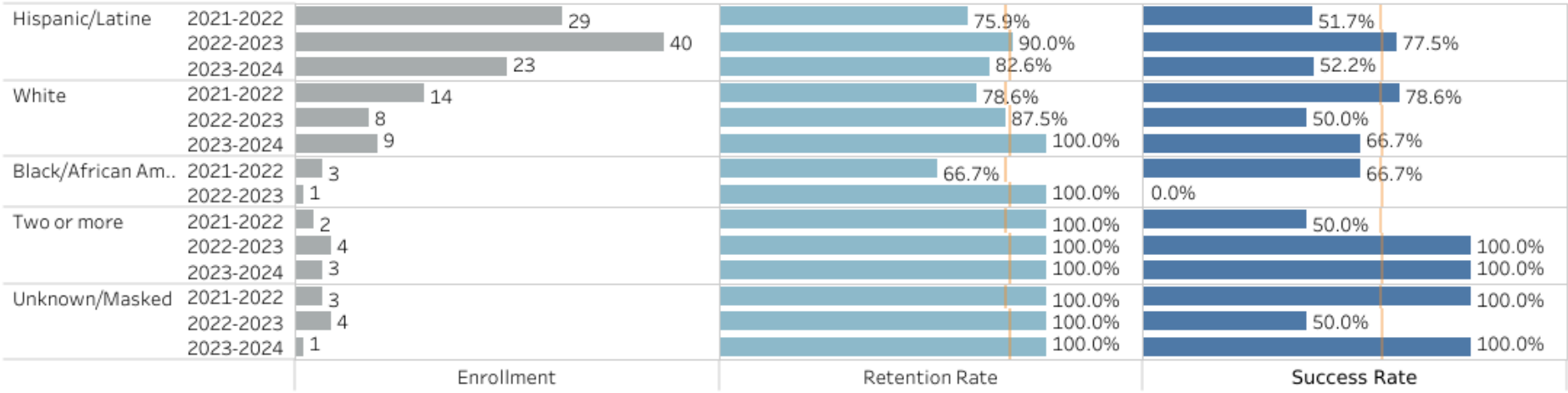
< Select subject here

AVC Retention and Success shown in vertical

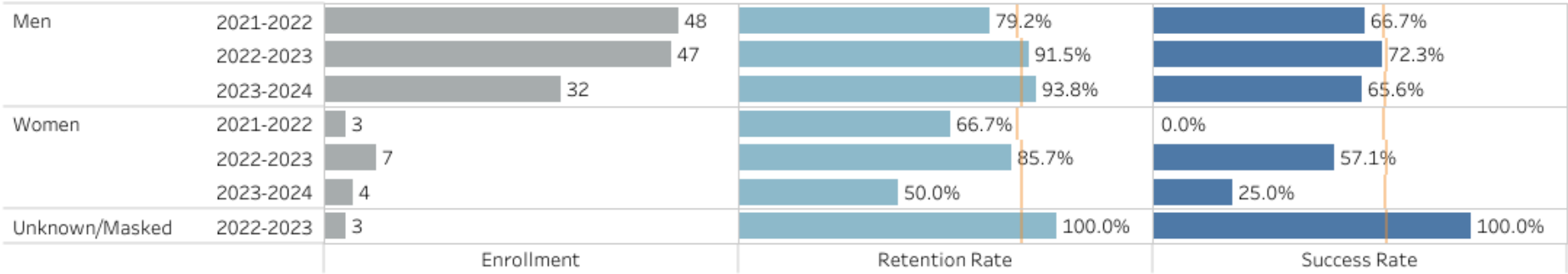
Overall Enrollments, # of Sections, Retention and Success by Year for AM



Enrollments, Retention & Success for AM by Ethnicity



Enrollment, Retention and Success for AM by Gender



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Program Awards

Select Academic Year: Multiple values

Select Ethnicity: All

Gender: All

(Use these filters add years & disaggregate by ethnicity and gender for both of the visualizations below)

Institutional Awards

Award Type	2021-2022	2022-2023	2023-2024
AA-T/AS-T	860	734	640
AA/AS	1366	1172	1292
Certificate	1426	1115	1108
AVC Local Certificate	189	210	194
Bachelor's	13	16	21
Non-Credit	58	38	64
Grand Total	3912	3285	3319

Select Program Majors: None

< Select Program Major for the chart below

Subject Awards for None

< Click to go back

Click to go next >

Fall 2024 Program Review Report | Instructional Areas

Division/Area Name: Aerospace, Industrial Arts, and Applied Technologies /Aeronautical Sciences & Technology/ Aeronautical & Aviation Technology (AERO)	**For Planning Years: 2025-2026**
Name of person leading this review: Dr. Maria Clinton-Houck and Jack R Halliday, Sr.	
Names of all participants in this review: Alfred Brubaker, Samuel Padilla, Doug Nuckolls, and David Champieux	

Part 1. Program Overview: ***Briefly describe how the program contributes to the district mission***

The Airframe and Powerplant Program contributes to the college mission as a career technical program. The program offers three associate 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.

Part 2A: Analyze the program review data (retrieval instructions), including equity data and any internal/external environmental scan information (e.g., surveys, interviews, focus groups, advisory groups, licensure exam scores, & job placement) to identify the program Strengths, Opportunities & Aspirations:

Use the following questions to guide your analysis:

Overall (Use the *Success & Retention* and *Program Award* tabs to inform your analysis)

- What are the success and retention rates for your discipline? Did they decrease or increase in the last year?
- What are the trends for the number of awards granted? Are the number of awards going up or down?

Equity (Use the *Success & Retention* tab including S&R by Ethnicity and Gender data to inform your analysis)

- Which ethnic / gender student groups complete their courses at the highest rates?
- Which ethnic / gender student groups experience the largest gaps when compared to the highest-performing group? Analyze the trends across the last review period. If no equity gaps are present, please reflect on the strategies that are working in the *Strengths and Accomplishments* section.

Strengths and Accomplishments: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The AERO program emphasizes the necessary and essential skills for the aviation maintenance industry, focusing not only on technical skills but also on work habits like precision, teamwork, and safety. These habits are crucial in aviation maintenance and translate well into other related career paths, making AERO graduates versatile and adaptable. The program integrates essential work habits, such as safety awareness, adherence to regulations, and collaboration, into the curriculum. These habits are instrumental in retention, as students develop a clear sense of purpose and professionalism, which supports persistence in the program. The curriculum is designed not only for aviation maintenance but also to impart transferable skills for other technical careers, broadening students' career prospects and supporting graduation rates as students see the value of their education across various industries. By equipping students with a wide range of technical and professional skills, the program prepares them for success not only in aviation maintenance but in other related careers, contributing to broad industry readiness.

The AERO Program's purchase of two regional jets demonstrates a commitment to providing students with up-to-date, practical training on current aircraft systems. This capability enables students to gain real-world skills on aircraft they may work on in the industry, thus enhancing their technical competencies. By offering training on the two newly acquired regional jets, the program has directly addressed a need for relevant, up-to-date equipment. Exposure to this equipment improves engagement, as students see clear, tangible connections between classroom learning and industry applications, enhancing retention.

Opportunities and Challenges: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

While the program is already updating curriculum to meet new FAA FAR 147 standards, there may be additional opportunities to ensure that the curriculum is responsive to emerging trends and technologies in aviation maintenance. Although the Federal Aviation Administration (FAA) sets the standards and dictates curriculum, regularly incorporating feedback from industry partners could further refine the curriculum to match current demands, making students more competitive and prepared. Given that FAA certification is a crucial milestone for students, providing targeted support, such as practice tests, certification workshops, and study sessions, could enhance pass rates. This focused preparation can directly impact student success by equipping students with the knowledge and confidence needed to excel in certification exams. As new jet aircraft systems are integrated into training, ensuring all students have sufficient access to hands-on practice with this technology is critical. This might involve rotating schedules, extended lab hours, or additional resources so students can maximize their time with the equipment, ultimately boosting their competence and success post-graduation.

Equity gaps are not currently identified in the Program Review Data. However, to ensure equitable learning opportunities, the program could consider implementing resources like loaner toolkits, supplemental instruction, and peer mentoring. Providing additional resources, particularly to students facing financial barriers or those from underrepresented backgrounds, can help level the playing field. Partnerships with local industry professionals for mentorship programs, especially targeting underrepresented students, can provide invaluable guidance, connections, and support. This can help these students build confidence and access networks that are essential for successful careers in aviation.

Aspirations: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The AERO Program is known for offering a curriculum aligned with industry standards, particularly FAA FAR 147 requirements, which ensures that students receive training that meets the latest regulations and industry expectations. This alignment equips students with relevant knowledge and technical skills essential for high performance in the aviation industry. With access to real-world equipment, including the newly acquired regional jets, students gain invaluable hands-on experience that closely mimics actual work environments. This experience develops their skills in areas such as airframe maintenance, powerplant repair, and jet systems, preparing them to contribute effectively to their future workplaces. The program's reputation as one of the top Airframe and Powerplant schools in California highlights its success in producing skilled and job-ready technicians. The consistent high demand for AERO graduates among employers underscores the program's quality and its effective preparation of students for the aviation maintenance workforce.

With the projected industry shortfall of 12,000 technicians over the next decade, the AERO Program's goal to expand its facilities is crucial. By accommodating higher student enrollment, the program can directly address the workforce gap, training a greater number of technicians to meet industry needs. The program envisions a facility expansion that would not only increase capacity but also support advanced training capabilities. This could include adding specialized lab spaces, upgrading current training equipment, and possibly incorporating virtual and augmented reality tools to simulate complex aircraft systems. This level of investment will ensure that students are prepared for both current and future advancements in aviation technology. Expansion also provides the opportunity to support a more diverse student body, helping meet demand for technicians while supporting equity in high-demand career fields. This could be facilitated through targeted outreach programs, scholarships, and partnerships with organizations focused on workforce development.

Part 2B: (Required for CTE) External Data: Advisory Committee Recommendations & Labor Market Data

☐ 2024 Advisory meeting is scheduled for 11/21/2024

Insert Advisory Committee Recommendations here (Please do not insert complete meeting minutes, but just recommendations from the advisory committee.)
Still the same: Advisory Committee recommendations are to add an Avionics Technician Program, a Metrology (precision measuring) Program, and a Low Observable Technology Program to enhance the abilities of the students. A new AST Advisory Committee meeting is scheduled for Nov 2024.

Insert Labor Market Data here https://www.labormarketinfo.edd.ca.gov/commcolleges/

TOP Code(s):

095000 Aeronautical and Aviation Technology

Geography: Los Angeles County

Includes: Los Angeles County

Annual Job Openings by Occupation

SOC Code	Occupation Title (Linked to "Occupation Profile")	2020 Employment	Annual Job Openings (1)
493011	Aircraft Mechanics and Service Technicians	4,340	4,560
512011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	900	770
492091	Avionics Technicians	460	430
	Total	5,700	5,760

(1) Total Job Openings are the sum of new jobs from growth plus net replacements. Annual job openings are total job openings divided by the number of years in the projection period.

(2)This occupation has been suppressed due to confidentiality.

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Part 2C: Review and comment on progress toward past Course Improvement Plans

List your past **Course Improvement Plans** (CIPs) and progress toward meeting those plans.

	Progress Made
Update Electronic Training Equipment & Virtual Reality	Equipment Purchased and Installed and Being Used - Completed
Update Runnable Jet Engine & Systems	Purchased 2 Jet Aircraft - Completed
Purchase Aerotrain to help students pass written exams conducted by FAA	Students are utilizing Aerotrain to prepare for FAA exams – Completed Incorporated and dramatically has improved the outcomes

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

List your past program review goals and progress towards those goals.

Past Goal	Progress Made
Update Curriculum based on new 147 Rules	Finished updating curriculum per new FAA 147 requirements, however, still need to incorporate changes into all projects.
Purchase Electronic Flight Information System	Purchased 2 Jet Aircraft with updated flight systems – Completed.
Expansion of Facilities at Fox Field	Still not completed – Dean is looking for additional funding to expand the facility with an additional hanger, classroom/labs and instructor offices at the Fox Field location, to double the AERO program and meet increased industry demands.

Part 3: Based on Part 2 above, please list program/area goals:

Program /Area Goal #	Goal Supports which:				ESP Goal Primarily Supported:	Goal (Student-focused)	Steps to be taken to achieve the goal?	Measure of Success (How would you know you've achieved your goal?)
	ILO	PLO	SLO	OO				
#1	ILO 4. Career and Specialized Knowledge				Goal #5 Education: Expansion of offerings and effective course scheduling.	The FAA has updated the regulations related to A&P schools. The update allows students to gain skills and training to meet the changing industry standards.	Instructors have made minor updates to the curriculum to match these regulations.	Demonstrates analytical reading and writing skills including research, quantitative and qualitative evaluation, and synthesis. Demonstrates listening and speaking skills that result in focused and coherent communications
#2	ILO 4. Career and Specialized Knowledge				Goal #6 Success: Boost success rates by prioritizing the student experience.	Uses intellectual curiosity, judgment and analytical decision-making in the acquisition, integration and application of knowledge and skills. Solves problems utilizing technology, quantitative and qualitative information and mathematical concepts	By purchasing updated equipment that enhance their skills in all aspects of aviation maintenance.	Evaluating students on performance and knowledge retainability.

#3	ILO 4. Career and Specialized Knowledge				Goal #5 Education: Expansion of offerings and effective course scheduling.	Demonstrates knowledge, skills and abilities related to student educational goals, including career, transfer and personal enrichment.	Discuss with the students, tips to taking the exams. Assisting them with good study habits to help in their success in taking the tests.	By increasing the number of students that take and pass the FAA written/oral and practical exams
#4	ILO 4. Career and Specialized Knowledge				Goal #5 Education: Expansion of offerings and effective course scheduling.	Develop Test Prep Classes for current NGC employees and DoD personnel.	Develop course curriculum and hire expert instructors, and facility expansion.	Successful passing of FAA required exams for A&P certification.

Part 4: Resource Requests that Support Program Goals (Based on the above analysis, please use the following space to document resource requests)

Type of Resource Request	Summary of Request	Which of your Program/area goals (Part 3) does this request support?	New or Repeat Request	Amount of Request, ($)	One-Time or Recurring Cost, ($)	Contact's Name
Faculty	Will need additional faculty in the future for expansion and curriculum development	Expansion of Facilities	Repeat	$200,000	Recurring	Alfred Brubaker
Physical/Facilities	Will need additional hangar and classrooms, offices at Fox Field Location for expansion	Expansion of Facilities	Repeat	$3,000,000	One-time	Alfred Brubaker
Professional development	Will need training on new systems per new 147 requirements	Expansion of Facilities	Repeat	$10,000 to $25,000	Recurring	Alfred Brubaker
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	

Part 5: Insert your Program Review Data here and any other supporting data. (See Part 2A above).

Required:

- Success & Retention tab
- Program Awards tab

Optional:

- Other supporting data/information

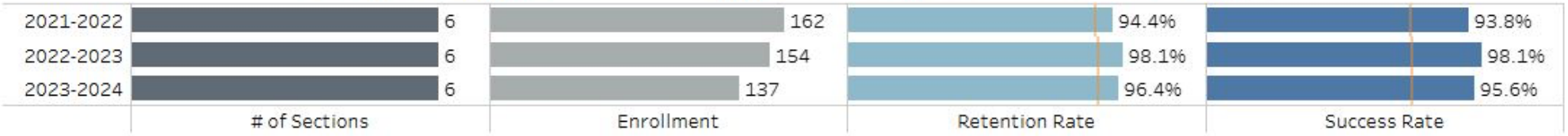
Select Academic Year: (Multiple values)

Select Subject: AERO

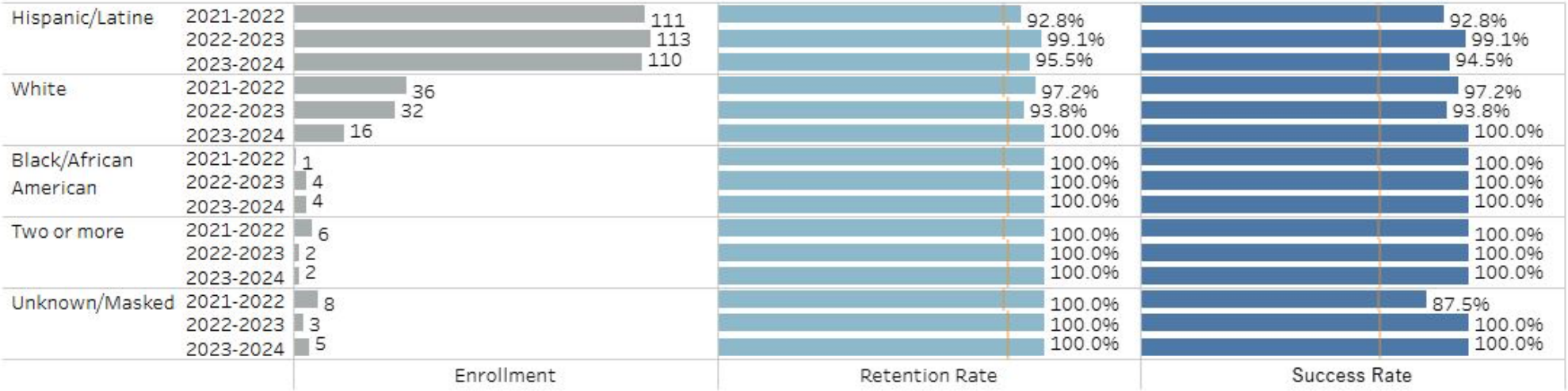
< Select subject here

AVC Retention and Success shown in vertical |

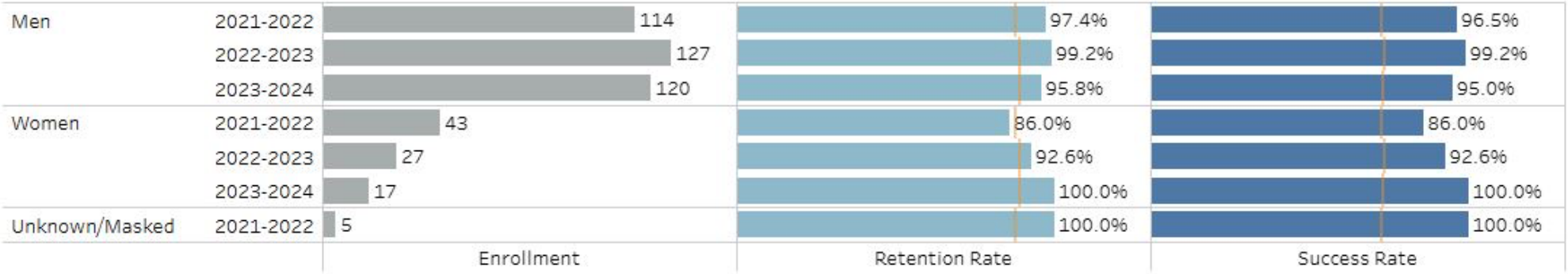
Overall Enrollments, # of Sections, Retention and Success by Year for AERO



Enrollments, Retention & Success for AERO by Ethnicity



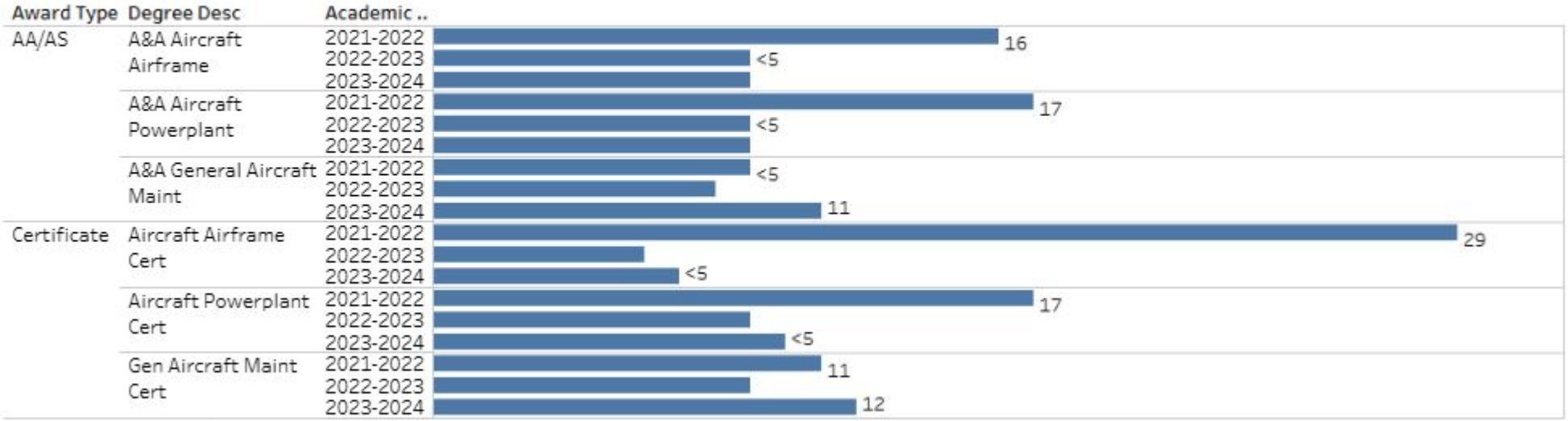
Enrollment, Retention and Success for AERO by Gender



Select Program Majors:

(Multiple values) < Select Program Major for the chart below

Subject Awards for A&A Aircraft Airframe, A&A Aircraft Powerplant, A&A General Aircraft Maint and 3 more



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Division/Area Name: Aerospace, Industrial Arts, and Applied Technologies/Aeronautical Sciences and Technology/ Aircraft Fabrication and Assembly (AFAB)	**For Planning Years: 2025-2026**
Name of person leading this review: Dr. Maria Clinton-Houck	
Names of all participants in this review: Alfred Brubaker, Jack B. Halliday, Carolyn Brubaker and Elaine Clinton	

The Aircraft Fabrication & Assembly Technician and the Advanced Aircraft Structures programs 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.

Part 2A: Analyze the program review data (retrieval instructions), including equity data and any internal/external environmental scan information (e.g., surveys, interviews, focus groups, advisory groups, licensure exam scores, & job placement) to identify the program Strengths, Opportunities & Aspirations:

Use the following questions to guide your analysis:

Overall (Use the *Success & Retention* and *Program Award* tabs to inform your analysis)

- What are the success and retention rates for your discipline? Did they decrease or increase in the last year?
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Equity (Use the *Success & Retention* tab including S&R by Ethnicity and Gender data to inform your analysis)

- Which ethnic / gender student groups complete their courses at the highest rates?
- Which ethnic / gender student groups experience the largest gaps when compared to the highest-performing group? Analyze the trends across the last review period. If no equity gaps are present, please reflect on the strategies that are working in the S*trengths and Accomplishments* section.

Strengths and Accomplishments: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

AFAB courses consistently achieve success and retention rates above 90%, which is higher than the AVC average. This strong performance demonstrates the program's effectiveness in engaging and supporting students throughout their studies. The program's curriculum is closely aligned with industry demands and standards, ensuring students develop the skills needed to meet current employer expectations. This alignment makes AFAB graduates competitive and job-ready upon completing the program, which strengthens its reputation among employers. The program has established close partnerships with industry leaders, which is a key asset. These partnerships not only help guide curriculum updates but also provide valuable networking opportunities for students, reinforcing their readiness for entry-level positions and boosting job placement.

To keep pace with changing industry requirements, the AFAB program frequently updates its curriculum, ensuring it remains relevant to employer needs. This approach equips students with the most up-to-date knowledge and skills, improving their confidence and competence, which contributes to higher success rates. By leveraging partnerships with industry, the program can offer resources and training that mirror actual workplace environments. This real-world training not only enhances students' practical skills but also strengthens their understanding of industry expectations, helping maintain high retention and success rates. Addressing the decline in certificate completions by encouraging students to apply for available certificates could be a helpful future practice. Promoting the value of certificates as an official recognition of their skills may incentivize more students to pursue these awards, potentially increasing the program's overall award count.

Opportunities and Challenges: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The AFAB program has seen increased demand and has been expanding its offerings to meet industry needs. However, the need for additional full-time faculty is critical to maintaining the quality of instruction as enrollment grows and new programs are introduced. Adding at least two full-time faculty members would help keep class sizes manageable, provide students with greater access to instructors, and ensure a consistent quality of instruction across all locations. With five labs across three different locations, a dedicated logistics coordinator is essential for overseeing the complex demands of equipment procurement, donations, lab maintenance, and housekeeping. This position would help streamline operations, ensure that all labs are fully equipped and up-to-date, and reduce downtime for students, ultimately supporting a more seamless and efficient learning experience. The industry has requested additional certificates in areas such as Electrical, Precision Measurements, Low Observable, and Aircraft Painting. Developing these programs not only meets industry demand but also allows students to specialize in high-demand skills, enhancing their employability and creating more pathways to success.

Although no equity gaps are currently identified, regular monitoring of demographic data and success metrics can help preemptively identify any emerging gaps. For instance, tracking the performance and retention of students in each certificate program could highlight specific needs or disparities that may require additional support. Ensuring equitable access to resources like tutoring, lab materials, and career counseling can support students from diverse backgrounds. Outreach initiatives aimed at underrepresented communities could promote awareness of the program, helping to recruit a broader range of students and encouraging diversity within the industry. Additional faculty can help implement peer mentoring initiatives, where upper-level students support newcomers, creating a sense of community and support. Faculty could also facilitate workshops on study skills, time management, and test preparation, particularly for new or at-risk students.

Aspirations: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The AFAB Program aims to be recognized as one of the world's premier training grounds for aviation technicians, known for producing graduates who are exceptionally qualified to meet the technical demands of various aviation fields. This includes not only traditional airframe and powerplant roles but also emerging specialties driven by advancements in aviation technology. The program strives to be known for its commitment to rigorous, industry-aligned training that consistently meets or exceeds industry standards. By maintaining close relationships with industry partners and adapting quickly to technological shifts, the program ensures that students receive a forward-looking education that positions them as leaders in the field.

In the coming years, the AFAB Program envisions expanding its facilities, capacity, and resources to train a higher number of technicians capable of filling a global industry demand projected to grow significantly. This includes increasing enrollment to help address the anticipated shortage of skilled aviation technicians, with a focus on producing graduates who can seamlessly transition into the workforce. The desired future includes expanding specialized certification tracks to address niche areas within aviation, such as advanced avionics, precision measurements, and low observable (stealth) technologies. This will allow students to gain targeted skills for specific career paths, further strengthening the program's reputation for producing versatile and highly specialized technicians.

☐ N/A

Insert Advisory Committee Recommendations here (Please do not insert complete meeting minutes, but just recommendations from the advisory committee.)
Advisory committee recommendations were the same: to develop the following certificate programs, Low Observable, Aircraft Painting, Advanced Composite, Aerospace Electrician, and Precision Measurements. A new AST Advisory Committee meeting is scheduled for Nov 2024.

Insert Labor Market Data here https://www.labormarketinfo.edd.ca.gov/commcolleges/

CIP Code(s):

470607 Airframe Mechanics and Aircraft Maintenance Technology/Technician

Geography: Los Angeles County

Includes: Los Angeles County

Annual Job Openings by Occupation

SOC Code	Occupation Title (Linked to "Occupation Profile")	2020 Employment	Annual Job Openings (1)
493011	Aircraft Mechanics and Service Technicians	4,340	4,560
512011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	900	770
492091	Avionics Technicians	460	430
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(2)This occupation has been suppressed due to confidentiality.

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Save or View in Excel | Back to Occupation List | New Search

Part 2C: Review and comment on progress toward past Course Improvement Plans

List your past **Course Improvement Plans** (CIPs) and progress toward meeting those plans.

	Progress Made
Discovery Metrology and NDI Lab fully functional	Metrology lab is completed, however, the NDI Lab still not fully functional (still waiting for ultrasonic testing machines)
Renovate Existing Composite & Structures Labs	1 Composite Lab (EL123/125) has been renovated; however, a new oven and power supply are still needed as well as recertification on the autoclave. Structures lab is still being renovated due to the purchase of new equipment.
More Full-Time, Adjunct Faculty and classified personnel	2 full time faculty has been hired, however more adjunct faculty are needed, as well as instructional assistant.
Development of new programs requested by industry	Development of LO, Electrical, Aircraft Systems, and Advanced Avionics programs are being discussed. Do not have the facility, faculty and staff to increase program offerings at this time.

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

List your past program review goals and progress towards those goals.

Past Goal	Progress Made
Facilities- The renovation and improvement on existing programs, funding to continue to run these programs and facilities needed for these programs, all the new programs that industry is requesting will need facilities and tooling and equipment	1 Composite Lab (EL123/125) has been renovated only, the other 3 have not. New facilities funding has not been secured.
Coordinator Supervisor - this is a must, if the program is going to continue to grow, and if new certificate programs are going to be developed, per industry request.	No progress made.
Implement new certificate programs – This is currently being done with new programs being placed on the schedule (spring 2023) due to delays in the Discovery Building.	Completed for the ALM program, however for the MSAM and ANDI programs possible full-time faculty positions may be needed in the future for these programs.
Faculty – new faculty to teach the new programs requested by industry	1 full time faculty has been hired

Part 3: Based on Part 2 above, please list program/area goals:

Program /Area Goal #	Goal Supports which:				ESP Goal Primarily Supported:	Goal (Student-focused)	Steps to be taken to achieve the goal?	Measure of Success (How would you know you've achieved your goal?)
	ILO	PLO	SLO	OO				
#1	ILO 4. Career and Specialized Knowledge				Goal #5 Education: Expansion of offerings and effective course scheduling.	Students need to be prepared with the proper knowledge and skills necessary to enter the workforce in order to be	Continue to work with advisory committee and recommendations to update labs -Continue to apply for grant funding to support lab	This is an ongoing goal, as industry is constantly changing with new technology.

						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	renovations and new lab development for existing and new certificate programs.	
#2	ILO 4. Career and Specialized Knowledge				Goal #5 Education: Expansion of offerings and effective course scheduling.	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	When coordination of new programs are adequately covered and grow.
#3	ILO 4. Career and Specialized Knowledge				Goal #5 Education: Expansion of offerings and effective course scheduling.	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. 26 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.	Continue to develop and Implement courses and programs.	This is an ongoing goal, as industry is constantly changing with new technology.
#4	Choose ILO				Choose an item.			

Part 4: Resource Requests that Support Program Goals (Based on the above analysis, please use the following space to document resource requests)

Type of Resource Request	Summary of Request	Which of your Program/area goals (Part 3) does this request support?	New or Repeat Request	Amount of Request, ($)	One-Time or Recurring Cost, ($)	Contact's Name
Faculty	Will need additional faculty in the future for expansion of programs	Meet Industry Demands	Repeat	$200,000	Recurring	Alfred Brubaker
Physical/Facilities	Will need to continue to renovate current labs and additional hangar and classrooms, offices at Fox Field Location for expansion of programs	Meet Industry Demands	Repeat	$500,000 for renovations	One-time	Alfred Brubaker
Professional development	Will need training for new and existing programs	Meet Industry Demands	Repeat	$10,000 to $25,000	Recurring	Alfred Brubaker
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	

Part 5: Insert your Program Review Data here and any other supporting data. (See Part 2A above).

Required:

- Success & Retention tab
- Program Awards tab

Optional:

- Other supporting data/information

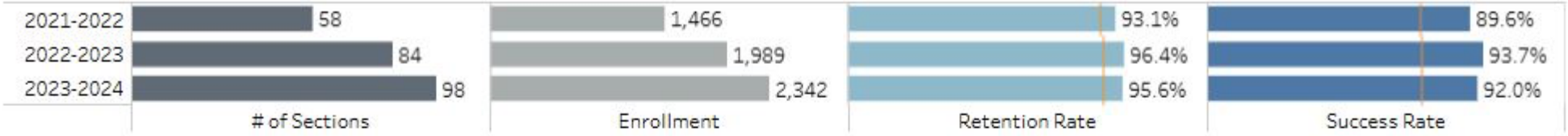
Select Academic Year: (Multiple values)

Select Subject: AFAB

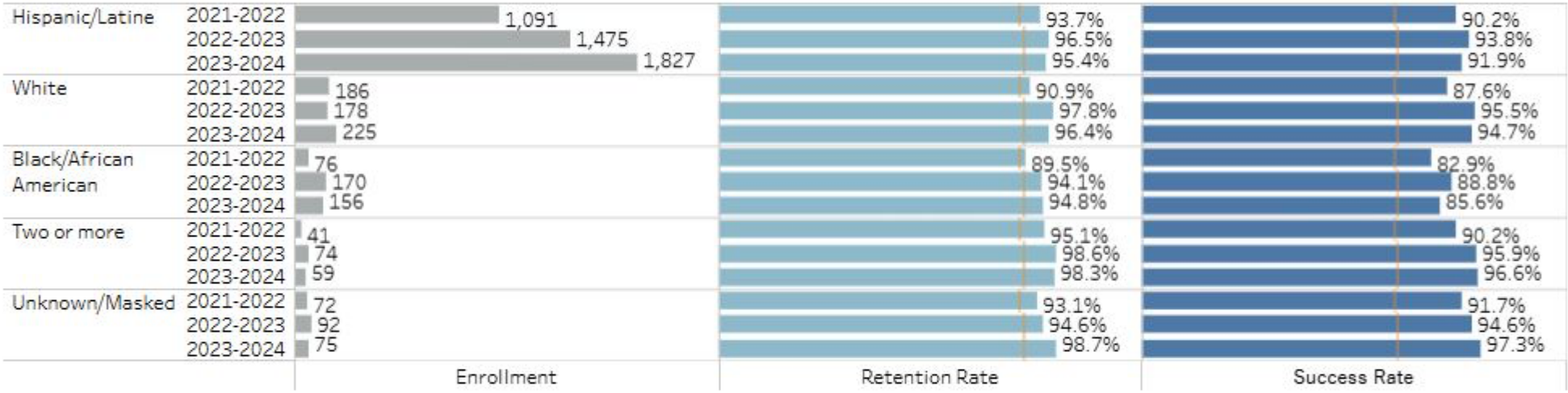
< Select subject here

AVC Retention and Success shown in vertical |

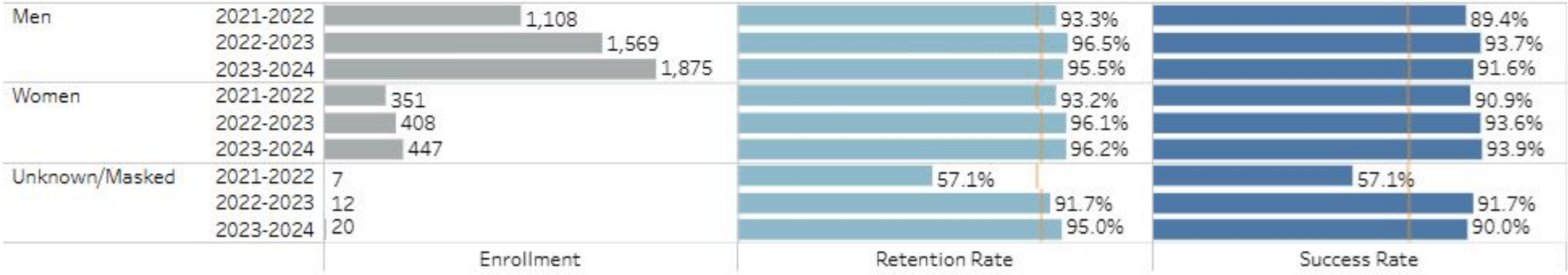
Overall Enrollments, # of Sections, Retention and Success by Year for AFAB



Enrollments, Retention & Success for AFAB by Ethnicity



Enrollment, Retention and Success for AFAB by Gender



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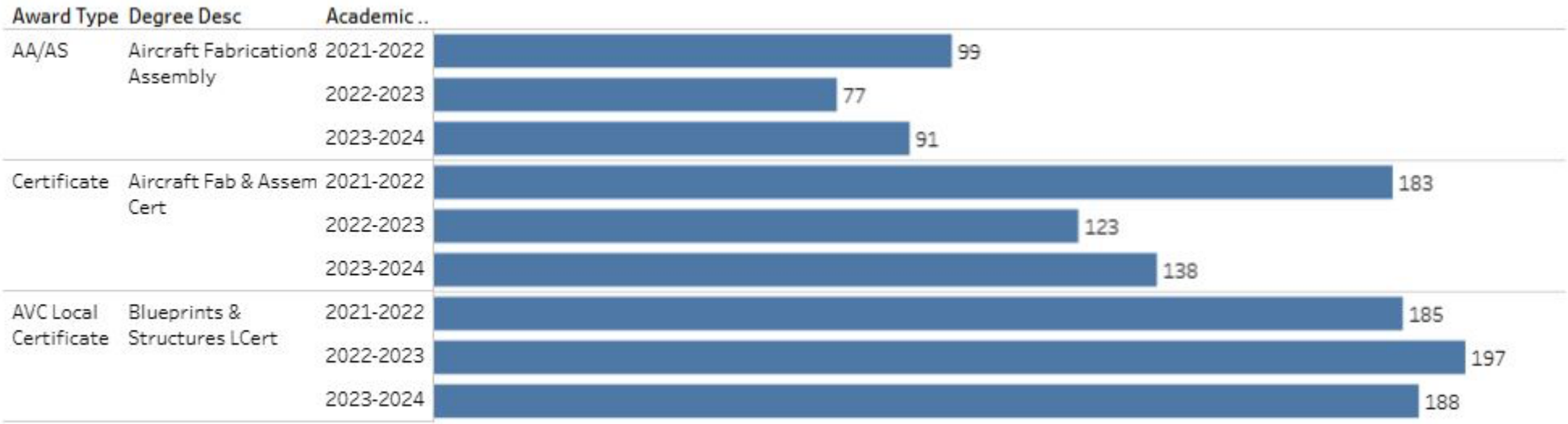
Subject Awards for **Aircraft Fab & Assem Cert, Aircraft Fabrication&Assembly, Blueprints & Structures LCert**



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Fall 2024 Program Review Report | Instructional Areas

Division/Area Name: Aerospace, Industrial Arts, and Applied Technologies /Aeronautical Sciences & Technology/ Aeronautical Non-Destructive Inspection (ANDI)	**For Planning Years: 2025-2026**
Name of person leading this review: Alfred Brubaker	
Names of all participants in this review: Alfred Brubaker	

The Aeronautical Non-Destructive Inspection program supports the district's mission as a career technical initiative by offering essential instruction in the aviation and aerospace manufacturing fields. It equips students with the skills and knowledge necessary to secure long-term employment in high-wage, high-skill careers. Additionally, the program provides the local aerospace industry with skilled entry-level non-destructive technicians.

Part 2A: Analyze the program review data (retrieval instructions), including equity data and any internal/external environmental scan information (e.g., surveys, interviews, focus groups, advisory groups, licensure exam scores, & job placement) to identify the program Strengths, Opportunities & Aspirations:

Use the following questions to guide your analysis:

Overall (Use the *Success & Retention* and *Program Award* tabs to inform your analysis)

- What are the success and retention rates for your discipline? Did they decrease or increase in the last year?
- What are the trends for the number of awards granted? Are the number of awards going up or down?

Equity (Use the *Success & Retention* tab including S&R by Ethnicity and Gender data to inform your analysis)

- Which ethnic / gender student groups complete their courses at the highest rates?
- Which ethnic / gender student groups experience the largest gaps when compared to the highest-performing group? Analyze the trends across the last review period. If no equity gaps are present, please reflect on the strategies that are working in the S*trengths and Accomplishments* section.

Strengths and Accomplishments: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The ANDI courses contain the necessary skills and knowledge to meet current employer demands and requirements for entry level positions. This program is unique, having been specifically requested by the industry. After the initial set of certificates is completed, we will conduct a review of the lessons learned and make improvements as needed.

Opportunities and Challenges: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

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.

Aspirations: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The world's leading aeronautical programs that continues to meet industry demands for qualified aviation technicians in a variety of aviation fields.

Part 2B: (Required for CTE) External Data: Advisory Committee Recommendations & Labor Market Data

☐ 2024 Advisory meeting is scheduled for 11/21/2024.

Projections of Employment by Occupation, 2020 - 2030

Selections:

TOP Code(s):

095680 Industrial Quality Control

Geography: California

Includes: All California Counties

Annual Job Openings by Occupation

SOC Code	Occupation Title (Linked to "Occupation Profile")	2020 Employment	Annual Job Openings (1)
519061	Inspectors, Testers, Sorters, Samplers, and Weighers	60,300	64,370
	Total	60,300	64,370

(1) Total Job Openings are the sum of new jobs from growth plus net replacements. Annual job openings are total job openings divided by the number of years in the projec period.

(2)This occupation has been suppressed due to confidentiality.

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Save or View in Excel | Back to Occupation List | New Search

Part 2C: Review and comment on progress toward past Course Improvement Plans

List your past **Course Improvement Plans** (CIPs) and progress toward meeting those plans.

Past Course Improvement Plans	Progress Made
We have no significant challenges to report. We are in the process of completing the final class for the Aeronautical Non-Destructive Inspection (ANDI) certificate.	After the first group of students completes the program, we will collect their feedback and begin implementing course improvements.

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

List your past program review goals and progress towards those goals.

Past Goal	Progress Made
Update the curriculum based on recommendations from aerospace advisory committees and leadership.	We continually adjust the curriculum to incorporate industry-specific requirements, implementing proprietary processes and documentation to ensure our students receive the most current and relevant education possible

Part 3: Based on Part 2 above, please list program/area goals:

Program /Area Goal #	Goal Supports which:				ESP Goal Primarily Supported:	Goal (Student-focused)	Steps to be taken to achieve the goal?	Measure of Success (How would you know you've achieved your goal?)
	ILO	PLO	SLO	OO				
#1	ILO 2. Creative, Critical, and Analytical Thinking	X	X		Goal #4 Vision: Being more future-thinking, agile, innovative, and proactive.	By specializing in Aeronautical Non-Destructive Inspection (ANDI), students will become more future-thinking, agile, innovative, and proactive within the dynamic and rapidly evolving aerospace industry. They will develop advanced critical thinking and analytical problem-solving skills focused on non-destructive testing and inspection methods, enabling them to proactively identify potential operational and production issues—thereby preventing costly	Enhance Curriculum with Current Industry Trends and Technologies Update Course Content: Continuously revise the curriculum to include the latest aerospace processes, procedures, and advanced technologies used in creating 5th and 6th generation aircraft. Incorporate Agile Methodologies: Implement teaching of agile frameworks and project management techniques to ensure students are adaptable to industry changes.	1. Student Competency and Performance Measure: Enhanced proficiency in critical thinking, problem-solving, and application of current industry trends and technologies. Success Indicator: High scores on assessments, projects, and simulations that reflect the latest aerospace practices, demonstrating students' ability to effectively apply advanced concepts and skills. 2. Graduate Success and Industry Impact

						delays and damage. Additionally, by mastering cutting-edge non-destructive inspection techniques and staying ahead of industry trends, they will invest in continuous improvement and foster innovation. This will help maintain a competitive edge in creating state-of-the-art 5th and 6th generation aircraft.	Invest in Resources: Provide access to state-of-the-art equipment and simulation software to give students hands-on experience with modern tools. Develop Critical Thinking, Problem-Solving, and Proactive Leadership Skills Interactive Learning: Use problem-based learning, simulations, and analytical projects to enhance critical thinking and problem-solving abilities. Leadership Training: Offer courses and workshops focused on leadership development, effective communication, and team management. Foster Innovation: Encourage innovation through labs, collaborative projects, and entrepreneurship programs that promote creative solutions to industry challenges. Strengthen Industry Collaboration and Continuous Improvement Industry Partnerships: Collaborate with aerospace companies and advisory	Measure: Successful employment of graduates in relevant aerospace leadership and management roles. Success Indicator: High job placement rates with alumni advancing into leadership positions, contributing innovatively to their organizations, and receiving recognition for their impact in the industry. 3. Program Growth and Industry Collaboration Measure: Increased enrollment, retention, and completion rates, along with strengthened partnerships with aerospace industry leaders. Success Indicator: Growth in student numbers, improved retention and graduation rates, and active collaboration with industry through internships, guest lectures, and joint projects, leading to positive feedback from both students and industry partners.

							boards to keep the program aligned with current industry needs and trends. Feedback Mechanisms: Implement regular feedback from students, alumni, and industry partners to identify areas for improvement. Stay Ahead of Trends: Encourage students and faculty to engage with industry publications, research assignments, and guest lectures to remain informed about emerging developments. 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.	
#2	ILO 4. Career and Specialized Knowledge	X	X		Goal #5 Education: Expansion of offerings and effective course scheduling.	Grow the program	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.	When a new full time faculty is hired.
#3	Choose ILO				Choose an item.			
#4	Choose ILO				Choose an item.			

Part 4: Resource Requests that Support Program Goals (Based on the above analysis, please use the following space to document resource requests)

Type of Resource Request	Summary of Request	Which of your Program/area goals (Part 3) does this request support?	New or Repeat Request	Amount of Request, ($)	One-Time or Recurring Cost, ($)	Contact's Name
Technology	14 Ultrasonic Detectors	ALL	New	$250,000	One-time	Alfred Brubaker
Faculty	Full-time Faculty needed for the program to improve.	ALL	Repeat	$100,000	Recurring	Alfred Brubaker
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	

Part 5: Insert your Program Review Data here and any other supporting data. (See Part 2A above).

Required:

- Success & Retention tab
- Program Awards tab

Optional:

- Other supporting data/information

Success and Retention

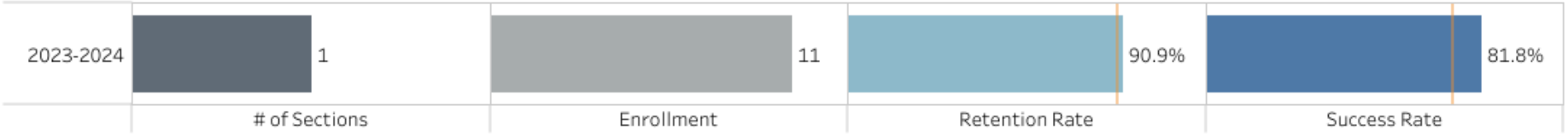
Select Academic Year:
Multiple values

Select Subject:
ANDI

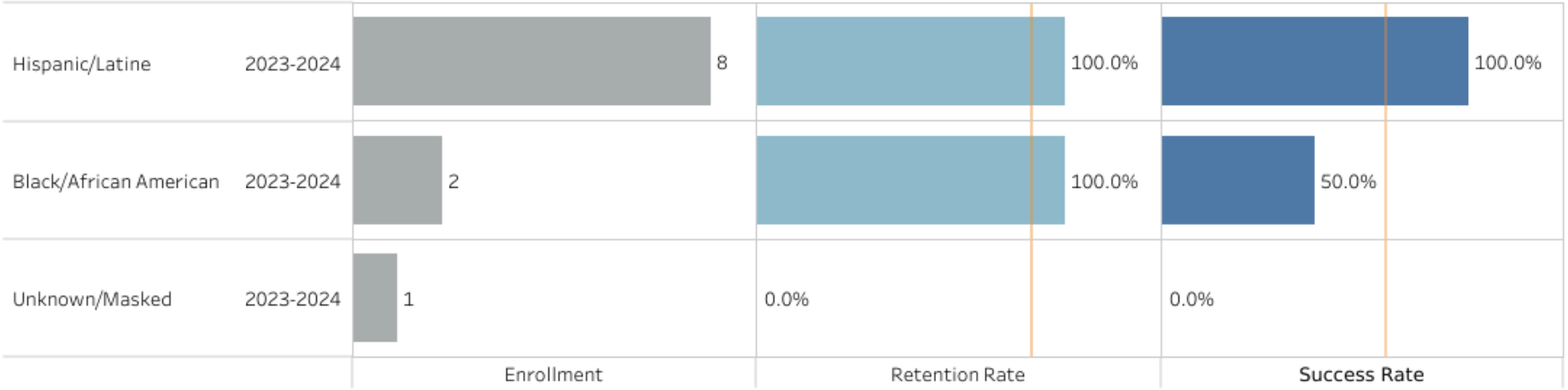
< Select subject here

AVC Retention and Success shown in vertical |

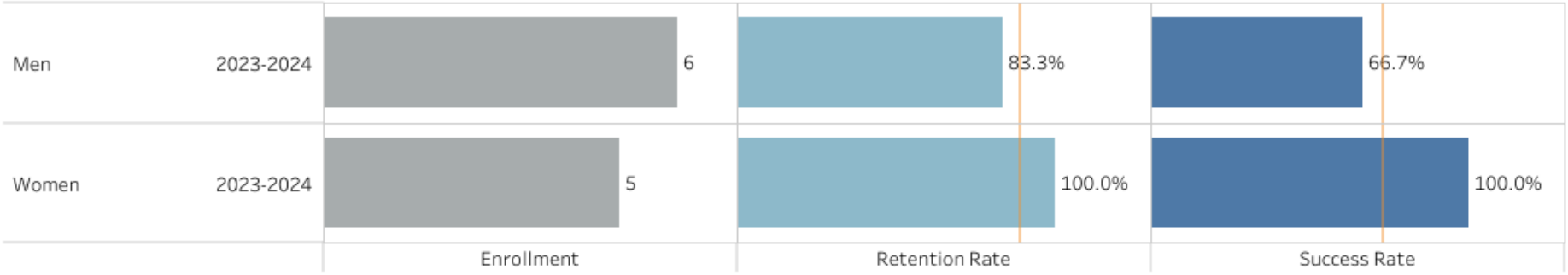
Overall Enrollments, # of Sections, Retention and Success by Year for ANDI



Enrollments, Retention & Success for ANDI by Ethnicity



Enrollment, Retention and Success for ANDI by Gender



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Program Awards

Select Academic Year: Multiple values

Select Ethnicity: All

Gender All

(Use these filters add years & disaggregate by ethnicity and gender for both of the visualizations below)

Institutional Awards

Award Type	2021-2022	2022-2023	2023-2024
AA-T/AS-T	860	734	640
AA/AS	1366	1172	1292
Certificate	1426	1115	1108
AVC Local Certificate	189	210	194
Bachelor's	13	16	21
Non-Credit	58	38	64
Grand Total	**3912**	**3285**	**3319**

Select Program Majors: None

< Select Program Major for the chart below

Subject Awards for None

< Click to go back

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Fall 2024 Program Review Report | Instructional Areas

Division/Area Name: Aerospace, Industrial Arts, and Applied Technologies /Aeronautical Sciences & Technology/ Aerospace Leadership and Management (ALM)	**For Planning Years: 2025-2026**
Name of person leading this review: Alfred Brubaker	
Names of all participants in this review: Alfred Brubaker	
Aerospace Leadership and Management (ALM) contributes to the college mission as a career technical program by providing the local aerospace industry student with an advanced understating of aerospace management tailored for aircraft production environment.	

Part 2A: Analyze the program review data (retrieval instructions), including equity data and any internal/external environmental scan information (e.g., surveys, interviews, focus groups, advisory groups, licensure exam scores, & job placement) to identify the program Strengths, Opportunities & Aspirations:

Use the following questions to guide your analysis:

Overall (Use the *Success & Retention* and *Program Award* tabs to inform your analysis)

- What are the success and retention rates for your discipline? Did they decrease or increase in the last year?
- What are the trends for the number of awards granted? Are the number of awards going up or down?

Equity (Use the *Success & Retention* tab including S&R by Ethnicity and Gender data to inform your analysis)

- Which ethnic / gender student groups complete their courses at the highest rates?
- Which ethnic / gender student groups experience the largest gaps when compared to the highest-performing group? Analyze the trends across the last review period. If no equity gaps are present, please reflect on the strategies that are working in the S*trengths and Accomplishments* section.

Strengths and Accomplishments: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

ALM courses provide the necessary skills and knowledge to meet current employer demand for employees with a solid understanding of aerospace leadership and management. Through a blend of instructor-led lectures and hands-on process improvement activities, the program covers essential topics like 5S, Earned Value Management Systems (EVMS), and Total Quality Management (TQM). By collaborating closely with industry leaders, we ensure our students are equipped to interpret budgets, manage schedules, and analyze reporting metrics, directly preparing them for success in aerospace leadership roles. This approach addresses industry demand by fostering a workforce-ready graduate pool proficient in management fundamentals and process efficiency.

Opportunities and Challenges: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

We must keep our curriculum current to align with the demands of the aerospace industry. An opportunity lies in continuously updating our courses to include the latest aerospace leadership and management practices, such as advancements in 5S methodologies, Earned Value Management Systems (EVMS), and Total Quality Management (TQM).

Aspirations: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The world's leading aeronautical programs that continues to meet industry demands for qualified aviation technicians in a variety of aviation fields.

Part 2B: (Required for CTE) External Data: Advisory Committee Recommendations & Labor Market Data

☐ 2024 Advisory meeting is scheduled for 11/21/2024.

Projections of Employment by Occupation, 2020 - 2030

Selections:

CIP Code(s):

150699 Industrial Production Technologies/Technicians, Other

Geography: California

Includes: All California Counties

Annual Job Openings by Occupation

SOC Code	Occupation Title (Linked to "Occupation Profile")	2020 Employment	Annual Job Openings (1)
173026	Industrial Engineering Technicians	2,900	3,070
	Total	2,900	3,070

(1) Total Job Openings are the sum of new jobs from growth plus net replacements. Annual job openings are total job openings divided by the number of years in the projection period.

(2)This occupation has been suppressed due to confidentiality.

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Save or View in Excel | Back to Occupation List | New Search

Part 2C: Review and comment on progress toward past Course Improvement Plans

List your past **Course Improvement Plans** (CIPs) and progress toward meeting those plans.

	Progress Made
We have no significant challenges to report. We are in the process of completing the final class for the Aerospace Leadership and Management (ALM) certificate, and we believe that annual program reviews do not add substantial value.	After the first group of students completes the program, we will collect their feedback and begin implementing course improvements.

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

Past Goal	Progress Made
Update the curriculum based on recommendations from aerospace advisory committees and leadership.	We continually adjust the curriculum to incorporate industry-specific requirements, implementing proprietary processes and documentation to ensure our students receive the most current and relevant education possible.

Part 3: Based on Part 2 above, please list program/area goals:

Program /Area Goal #	Goal Supports which:				ESP Goal Primarily Supported:	Goal (Student-focused)	Steps to be taken to achieve the goal?	Measure of Success (How would you know you've achieved your goal?)
	ILO	PLO	SLO	OO				
#1	ILO 2. Creative, Critical, and Analytical Thinking	X			Goal #4 Vision: Being more future-thinking, agile, innovative, and proactive.	Being more future-thinking, agile, innovative, and proactive in the dynamic and rapidly evolving aerospace industry. Students will develop advanced critical thinking and analytical problem-solving skills to proactively identify potential operational and production issues, preventing costly delays and damage. Additionally, they will stay ahead of industry trends, invest in continuous improvement, and foster innovation to maintain a competitive edge in creating state-of-the-art 5th and 6th generation aircraft.	**Enhance Curriculum with Current Industry Trends and Technologies** Update Course Content: Continuously revise the curriculum to include the latest aerospace processes, procedures, and advanced technologies used in creating 5th and 6th generation aircraft. Incorporate Agile Methodologies: Implement teaching of agile frameworks and project management techniques to ensure students are adaptable to industry changes. Invest in Resources: Provide access to state-of-the-art	**1. Student Competency and Performance** Measure: Enhanced proficiency in critical thinking, problem-solving, and application of current industry trends and technologies. Success Indicator: High scores on assessments, projects, and simulations that reflect the latest aerospace practices, demonstrating students' ability to effectively apply advanced concepts and skills. 2. **Graduate Success and Industry Impact** Measure: Successful employment of graduates in relevant aerospace

							equipment and simulation software to give students hands-on experience with modern tools. **Develop Critical Thinking, Problem-Solving, and Proactive Leadership Skills** Interactive Learning: Use problem-based learning, simulations, and analytical projects to enhance critical thinking and problem-solving abilities. Leadership Training: Offer courses and workshops focused on leadership development, effective communication, and team management. Foster Innovation: Encourage innovation through labs, collaborative projects, and entrepreneurship programs that promote creative solutions to industry challenges. **Strengthen Industry Collaboration and Continuous Improvement** Industry Partnerships: Collaborate with aerospace companies and advisory boards to keep the program	leadership and management roles. Success Indicator: High job placement rates with alumni advancing into leadership positions, contributing innovatively to their organizations, and receiving recognition for their impact in the industry. 3**. Program Growth and Industry Collaboration** Measure: Increased enrollment, retention, and completion rates, along with strengthened partnerships with aerospace industry leaders. Success Indicator: Growth in student numbers, improved retention and graduation rates, and active collaboration with industry through internships, guest lectures, and joint projects, leading to positive feedback from both students and industry partners.

							aligned with current industry needs and trends. Feedback Mechanisms: Implement regular feedback from students, alumni, and industry partners to identify areas for improvement. Stay Ahead of Trends: Encourage students and faculty to engage with industry publications, research assignments, and guest lectures to remain informed about emerging developments.	
#2	Choose ILO				Choose an item.			
#3	Choose ILO				Choose an item.			
#4	Choose ILO				Choose an item.			

Part 4: Resource Requests that Support Program Goals (Based on the above analysis, please use the following space to document resource requests)

Type of Resource Request	Summary of Request	Which of your Program/area goals (Part 3) does this request support?	New or Repeat Request	Amount of Request, ($)	One-Time or Recurring Cost, ($)	Contact's Name
Other	No request at this time		Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	

Part 5: Insert your Program Review Data here and any other supporting data. (See Part 2A above).

Required:

- Success & Retention tab
- Program Awards tab- NONE

Optional:

- Other supporting data/information

Success and Retention

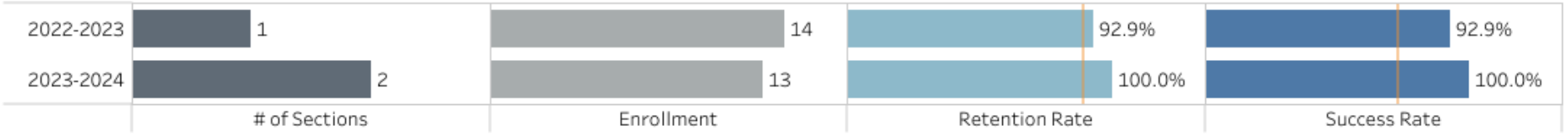
Select Academic Year: Multiple values

Select Subject: ALM

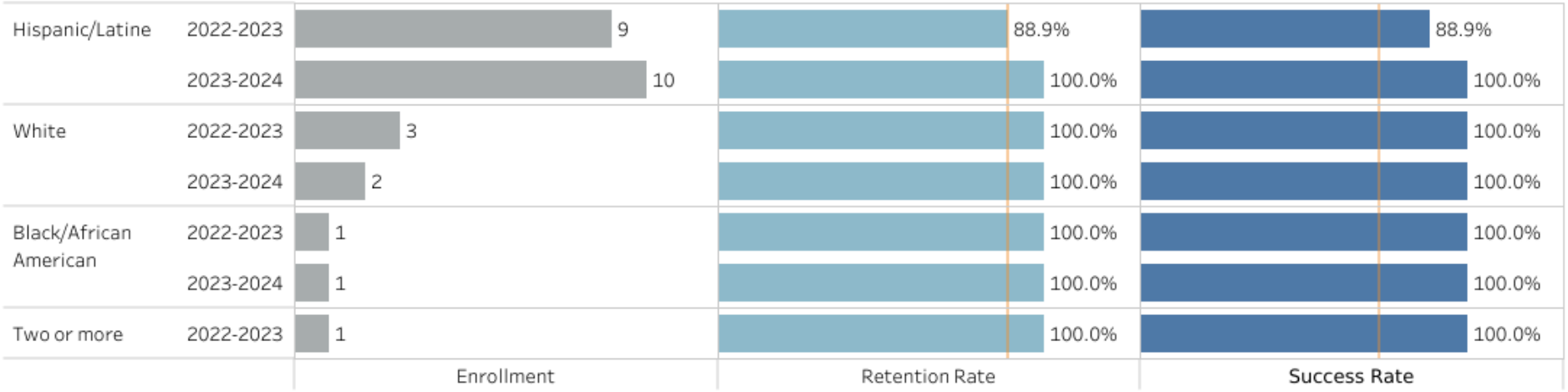
< Select subject here

AVC Retention and Success shown in vertical |

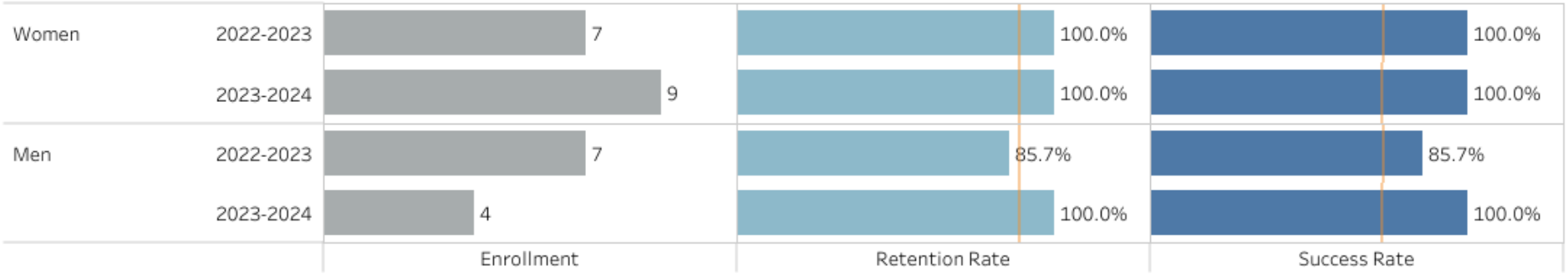
Overall Enrollments, # of Sections, Retention and Success by Year for ALM



Enrollments, Retention & Success for ALM by Ethnicity



Enrollment, Retention and Success for ALM by Gender



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Division/Area Name: Aerospace, Industrial Arts, and Applied Technologies /Aeronautical Sciences & Technology/ Metrology Sciences for Aerospace Manufacturing (MSAM)	**For Planning Years: 2025-2026**
Name of person leading this review: Alfred Brubaker	
Names of all participants in this review: Alfred Brubaker	

Antelope Valley College's Aeronautical Sciences & Technology Department partners with local aviation employers who provide resources, adjunct faculty, and serve on our advisory committee. We offer career technical education leading to a certificate in Metrology Sciences for Aerospace Manufacturing, preparing students with the knowledge, skills, and attitudes for entry-level positions in computer-aided manufacturing and careers in aviation manufacturing and maintenance.

Part 2A: Analyze the program review data (retrieval instructions), including equity data and any internal/external environmental scan information (e.g., surveys, interviews, focus groups, advisory groups, licensure exam scores, & job placement) to identify the program Strengths, Opportunities & Aspirations:

Use the following questions to guide your analysis:

Overall (Use the *Success & Retention* and *Program Award* tabs to inform your analysis)

- What are the success and retention rates for your discipline? Did they decrease or increase in the last year?
- What are the trends for the number of awards granted? Are the number of awards going up or down?

Equity (Use the *Success & Retention* tab including S&R by Ethnicity and Gender data to inform your analysis)

- Which ethnic / gender student groups complete their courses at the highest rates?
- Which ethnic / gender student groups experience the largest gaps when compared to the highest-performing group? Analyze the trends across the last review period. If no equity gaps are present, please reflect on the strategies that are working in the S*trengths and Accomplishments* section.

Strengths and Accomplishments: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The MSAM courses contain the necessary skills and knowledge to meet current employer demands and requirements for entry level positions. This program is unique, having been specifically requested by the industry. After the initial set of certificates is completed, we will conduct a review of the lessons learned and make improvements as needed.

Opportunities and Challenges: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

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.

Aspirations: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The world's leading aeronautical programs that continues to meet industry demands for qualified aviation technicians in a variety of aviation fields.

Part 2B: (Required for CTE) External Data: Advisory Committee Recommendations & Labor Market Data

☐ 2024 Advisory meeting is scheduled for 11/21/2024.

Projections of Employment by Occupation, 2020 - 2030

Selections:

CIP Code(s):

150613 Manufacturing Technology/Technician

Geography: California

Includes: All California Counties

Annual Job Openings by Occupation

SOC Code	Occupation Title (Linked to "Occupation Profile")	2020 Employment	Annual Job Openings (1)
173026	Industrial Engineering Technicians	2,900	3,070
	Total	2,900	3,070

(1) Total Job Openings are the sum of new jobs from growth plus net replacements. Annual job openings are total job openings divided by the number of years in the projection period.

(2)This occupation has been suppressed due to confidentiality.

Table Generated on 11/7/2024 11:52:09 AM

Save or View in Excel | Back to Occupation List | New Search

Part 2C: Review and comment on progress toward past Course Improvement Plans

List your past **Course Improvement Plans** (CIPs) and progress toward meeting those plans.

Past Course Improvement Plans	Progress Made
We have no significant challenges to report. We are in the process of completing the final class for the Metrology Sciences for Aerospace Manufacturing (MSAM) certificate.	After the first group of students completes the program, we will collect their feedback and begin implementing course improvements.

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

List your past program review goals and progress towards those goals.

Past Goal	Progress Made
Update the curriculum based on recommendations from aerospace advisory committees and leadership.	We continually adjust the curriculum to incorporate industry-specific requirements, implementing proprietary processes and documentation to ensure our students receive the most current and relevant education possible.

Part 3: Based on Part 2 above, please list program/area goals:

Program /Area Goal #	Goal Supports which:				ESP Goal Primarily Supported:	Goal (Student-focused)	Steps to be taken to achieve the goal?	Measure of Success (How would you know you've achieved your goal?)
	ILO	PLO	SLO	OO				
#1	ILO 2. Creative, Critical, and Analytical Thinking	X	X		Goal #4 Vision: Being more future-thinking, agile, innovative, and proactive.	By specializing in Metrology Sciences for Aerospace Manufacturing (MSAM), students will become more future-thinking, agile, innovative, and proactive within the dynamic and rapidly evolving aerospace industry. They will	**Enhance Curriculum with Current Industry Trends and Technologies** Update Course Content: Continuously revise the curriculum to include the latest aerospace processes, procedures, and advanced technologies used in	1. Student Competency and Performance Measure: Enhanced proficiency in critical thinking, problem-solving, and application of current industry trends and technologies.

						develop advanced critical thinking and analytical problem-solving skills focused on precise measurement and quality assurance, enabling them to proactively identify potential operational and production issues—thereby preventing costly delays and damage. Additionally, by mastering cutting-edge metrology techniques and staying ahead of industry trends, they will invest in continuous improvement and foster innovation. This will help maintain a competitive edge in creating state-of-the-art 5th and 6th generation aircraft.	creating 5th and 6th generation aircraft. Incorporate Agile Methodologies: Implement teaching of agile frameworks and project management techniques to ensure students are adaptable to industry changes. Invest in Resources: Provide access to state-of-the-art equipment and simulation software to give students hands-on experience with modern tools. **Develop Critical Thinking, Problem-Solving, and Proactive Leadership Skills** Interactive Learning: Use problem-based learning, simulations, and analytical projects to enhance critical thinking and problem-solving abilities. Leadership Training: Offer courses and workshops focused on leadership development, effective communication, and team management. Foster Innovation: Encourage innovation through labs, collaborative projects, and	Success Indicator: High scores on assessments, projects, and simulations that reflect the latest aerospace practices, demonstrating students' ability to effectively apply advanced concepts and skills. 2. Graduate Success and Industry Impact Measure: Successful employment of graduates in relevant aerospace leadership and management roles. Success Indicator: High job placement rates with alumni advancing into leadership positions, contributing innovatively to their organizations, and receiving recognition for their impact in the industry. 3. Program Growth and Industry Collaboration Measure: Increased enrollment, retention, and completion rates, along with strengthened partnerships with aerospace industry leaders. Success Indicator: Growth in student numbers, improved retention and graduation rates, and active collaboration with industry through internships, guest

							entrepreneurship programs that promote creative solutions to industry challenges. **Strengthen Industry Collaboration and Continuous Improvement** Industry Partnerships: Collaborate with aerospace companies and advisory boards to keep the program aligned with current industry needs and trends. Feedback Mechanisms: Implement regular feedback from students, alumni, and industry partners to identify areas for improvement. Stay Ahead of Trends: Encourage students and faculty to engage with industry publications, research assignments, and guest lectures to remain informed about emerging developments.	lectures, and joint projects, leading to positive feedback from both students and industry partners.
#2	ILO 4. Career and Specialized Knowledge	X	X		Goal #5 Education: Expansion of offerings and effective course scheduling.	Grow the program	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.	When a new full time faculty is hired.
#3	Choose ILO				Choose an item.			
#4	Choose ILO				Choose an item.			

Part 4: Resource Requests that Support Program Goals (Based on the above analysis, please use the following space to document resource requests)

Type of Resource Request	Summary of Request	Which of your Program/area goals (Part 3) does this request support?	New or Repeat Request	Amount of Request, ($)	One-Time or Recurring Cost, ($)	Contact's Name
Faculty	Full-time Faculty needed for the program to improve.	All	Repeat	$100,000	Recurring	Alfred Brubaker
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	

Part 5: Insert your Program Review Data here and any other supporting data. (See Part 2A above).

Required:

- Success & Retention tab
- Program Awards tab

Optional:

- Other supporting data/information

Success and Retention

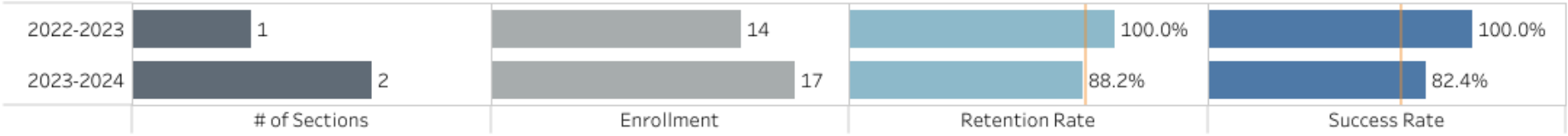
Select Academic Year:
Multiple values

Select Subject:
MSAM

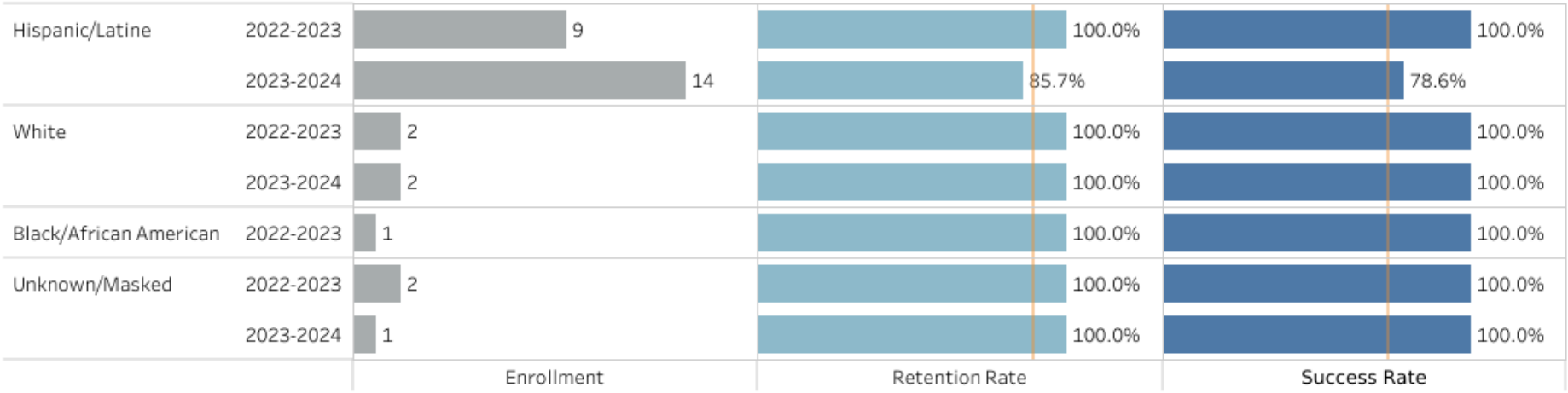
< Select subject here

AVC Retention and Success shown in vertical |

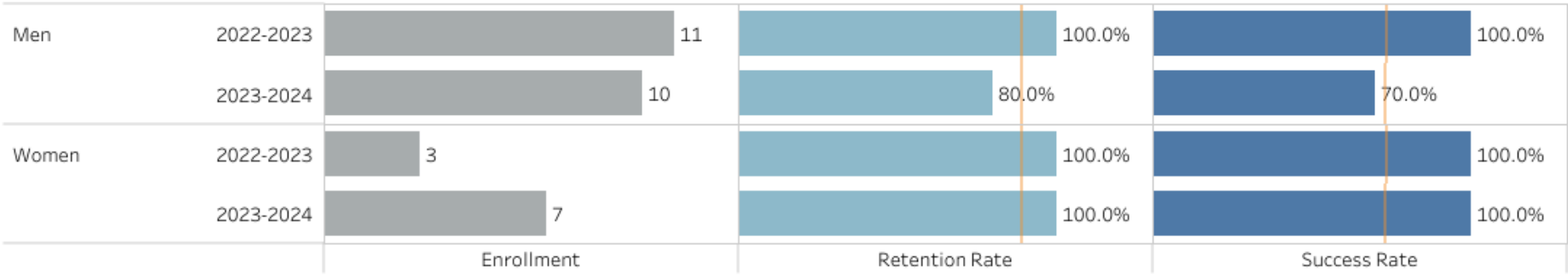
Overall Enrollments, # of Sections, Retention and Success by Year for MSAM



Enrollments, Retention & Success for MSAM by Ethnicity



Enrollment, Retention and Success for MSAM by Gender



< Click to go back

Click to go next >

Program Awards

Select Academic Year: Multiple values

Select Ethnicity: All

Gender All

(Use these filters add years & disaggregate by ethnicity and gender for both of the visualizations below)

Institutional Awards

Award Type	2021-2022	2022-2023	2023-2024
AA-T/AS-T	860	734	640
AA/AS	1366	1172	1292
Certificate	1426	1115	1108
AVC Local Certificate	189	210	194
Bachelor's	13	16	21
Non-Credit	58	38	64
Grand Total	3912	3285	3319

Select Program Majors: Metrology Sci Aero Manufctr..

< Select Program Major for the chart below

Subject Awards for Metrology Sci Aero Manufctrng

Award Type	Degree Desc	Academic ..
Certificate	Metrology Sci Aero Manufctrng	2023-2024

< Click to go back

Click to go next >

Fall 2024 Program Review Report | Instructional Areas

Division/Area Name: Aerospace, Industrial Arts, and Applied Technologies/Aeronautical Sciences & Technology/ Airframe Manufacturing Technology – Baccalaureate Degree (AFMT)	**For Planning Years: 2025-2026**
Name of person leading this review: Alfred Brubaker	
Names of all participants in this review: Alfred Brubaker	

Part 1. Program Overview: ***Briefly describe how the program contributes to the district mission***

The Airframe Manufacturing Technology Program (AFMT) contributes to the district mission by offering career technical education that provides local aerospace industry students with advanced understanding of production, logistics, and management tailored for efficient aircraft production. The program enhances higher educational attainment by being an integral part of workforce development and meeting industry demands.

Part 2A: Analyze the program review data (retrieval instructions), including equity data and any internal/external environmental scan information (e.g., surveys, interviews, focus groups, advisory groups, licensure exam scores, & job placement) to identify the program Strengths, Opportunities & Aspirations:

Use the following questions to guide your analysis:

Overall (Use the *Success & Retention* and *Program Award* tabs to inform your analysis)

- What are the success and retention rates for your discipline? Did they decrease or increase in the last year?
- What are the trends for the number of awards granted? Are the number of awards going up or down?

Equity (Use the *Success & Retention* tab including S&R by Ethnicity and Gender data to inform your analysis)

- Which ethnic / gender student groups complete their courses at the highest rates?
- Which ethnic / gender student groups experience the largest gaps when compared to the highest-performing group? Analyze the trends across the last review period. If no equity gaps are present, please reflect on the strategies that are working in the S*trengths and Accomplishments* section.

Strengths and Accomplishments: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The Airframe Manufacturing Technology (AFMT) program has maintained high success and retention rates over the past year. This positive trend shows how effectively we prepare students for the aerospace industry. Students from all racial and ethnic backgrounds complete their courses at high rates, with no significant equity gaps. This success comes from our inclusive teaching methods and strong support systems that effectively serve a diverse student body.

In the AFMT program, students receive comprehensive training in aircraft production, focusing on structures and composite fabrication. We build on these foundational skills by introducing advanced composite techniques, Lean manufacturing principles, and program management strategies essential for key roles in the aerospace industry.

One of our main strengths is the hands-on experience offered at the Fox Field facility. Here, students work directly with various airframes, engine types, and aircraft systems. They explore the theory behind aircraft operations and then apply that knowledge on fully operational aircraft, ensuring they are job-ready upon graduation.

By emphasizing advanced skill development, practical experience, and inclusive education, the AFMT program significantly contributes to workforce development and meets the industry's evolving needs.

Opportunities and Challenges: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

We must keep our curriculum current to align with the demands of the aerospace industry. Additionally, we should contemplate offering a part-time track for students who are unable to attend on a full-time basis. With the pursuit of ABET accreditation, our program will become even more valuable, enhancing its credibility and providing our graduates with a competitive edge in the job market.

Aspirations: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

Our program has established itself as a model for diversity and inclusion, earning accolades for its inclusive approach. My vision is for the program to become renowned for its life-changing impact on students and for creating opportunities that foster generational change.

This year, we will initiate the process of obtaining ABET accreditation, which will further enhance the credibility and value of our program. As we continue to grow and expand, it's important to consider introducing a daytime track to make our program more accessible to a wider range of students, including those who are unable to attend full-time or evening classes.

We must also continue to expand our facilities to support increased enrollment. By doing so, we can supply the industry with more trained professionals. Investing in our infrastructure and resources will not only benefit our students but also meet the growing demands of the industry, contributing to economic growth and innovation.

Part 2B: (Required for CTE) External Data: Advisory Committee Recommendations & Labor Market Data

☐ 2024 Advisory meeting is scheduled for 11/21/2024.

TOP Code(s):

- **095000 Aeronautical and Aviation Technology**

Geography: California

Includes: All California Counties

Annual Job Openings by Occupation			
SOC Code	**Occupation Title (Linked to "Occupation Profile")**	**2020 Employment**	**Annual Job Openings (1)**
493011	Aircraft Mechanics and Service Technicians	12,500	13,740
512011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	3,200	3,020
492091	Avionics Technicians	1,800	1,800
	Total	17,500	18,560

(1) Total Job Openings are the sum of new jobs from growth plus net replacements. Annual job openings are total job openings divided by the number of years in the projection period.

(2)This occupation has been suppressed due to confidentiality.

Part 2C: Review and comment on progress toward past Course Improvement Plans

List your past **Course Improvement Plans** (CIPs) and progress toward meeting those plans.

Past Course Improvement Plans	Progress Made
Metrology and NDI Lab fully functional	We are waiting to purchase 14 pieces of ultrasonic detection equipment.
Renovate Existing Composite & Structures Labs	We are waiting for the Facilities department to connect our hydraulic shears and to install additional power outlets.
More Full-Time and Adjunct Faculty	We will continue our search for adjunct faculty who will enhance the breadth of our program.
Development of new programs requested by industry	There has been no progress on the development of new programs.

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

Past Goal	Progress Made
Facilities: Renovations and improvements are currently underway for existing programs, with efforts also focused on securing funding to support their continued operation. Additionally, new industry-requested programs will require dedicated facilities, along with appropriate tooling and equipment to meet their specific needs. The AFMT program utilizes both the AFAB labs at Antelope Valley College and the Palmdale Technical Center, as well as the AERO facility located at Fox Field Airport.	Due to logistical challenges and facility limitations, we are currently awaiting the purchase and installation of ultrasonic detection equipment for the NDI lab. Currently, only one Composite Lab (EL123/125) has been renovated; the remaining three labs are still pending updates. As outlined in the AFAB Program Review, renovations for the AFAB labs on the AVC campus, which the AFMT program also utilizes, are scheduled for the near future.
Program Marketing	We have made limited progress in marketing, and additional efforts are necessary to sustain the program's growth.

Part 3: Based on Part 2 above, please list program/area goals:

Program /Area Goal #	Goal Supports which:				ESP Goal Primarily Supported:	Goal (Student-focused)	Steps to be taken to achieve the goal?	Measure of Success (How would you know you've achieved your goal?)
	ILO	PLO	SLO	OO				
#1	ILO 4. Career and Specialized Knowledge	X	X		Goal #4 Vision: Being more future-thinking, agile, innovative, and proactive.	Here's a revised version to align with the format:	1. Align Instructional Programs with Industry Needs: Ensure programs	1. Increased Student Employability and Workforce Readiness: Track the

						Align instructional programs to equip students with the knowledge and skills required for workforce success. This includes providing access to both theoretical instruction and hands-on experience through shop/lab work and projects. The Airframe Manufacturing Technology (AFMT) program utilizes the AFAB labs; therefore, it is essential for the AFAB program to renovate and enhance these labs at the AVC campus to meet these educational and industry-aligned requirements.	provide students with the essential knowledge and skills for workforce success. This includes integrating both theoretical classroom instruction and hands-on lab/shop experience to fully prepare students for employment. 2. Collaborate with the Advisory Committee: Continue working closely with the advisory committee to gather insights and recommendations for developing additional programs and updating existing facilities. Their input is invaluable for aligning our offerings with industry expectations. 3. Renovate and Enhance AFAB Labs: Upgrade the AFAB labs at the AVC campus to meet the evolving educational requirements of the Airframe Manufacturing Technology (AFMT) program and other programs that rely on this lab space. 4. Pursue ABET Accreditation: Work toward ABET accreditation to ensure our programs meet high-quality standards, improving program	employment rate of graduates in relevant fields to assess how well our programs align with industry needs. Success is indicated by high rates of job placement in aerospace and related sectors. 2. Positive Feedback from Industry Advisory Committee: Regular feedback from the advisory committee should show satisfaction with program quality and relevance. This includes confirming that our curriculum and facilities meet current industry standards and skills requirements. 3. Completion of AFAB Lab Renovations: Successful renovation and enhancement of the AFAB labs at the AVC campus, providing up-to-date equipment and facilities that support hands-on learning experiences required by the AFMT and other related programs. 4. Achievement of ABET Accreditation: Securing ABET accreditation for applicable programs would demonstrate our adherence to rigorous educational standards and enhance the credibility of our certifications, which is a

							credibility and attracting both students and industry partners.	strong measure of program quality. 5. Growth in Enrollment and Program Expansion: An increase in student enrollment and the successful development of additional programs based on industry recommendations would show that our offerings are attracting interest and fulfilling labor market needs.
#2	ILO 2. Creative, Critical, and Analytical Thinking	X	X		Goal #5 Education: Expansion of offerings and effective course scheduling.	Align instructional programs to the evolving skills demanded by the aerospace industry. The aerospace sector is dynamic and rapidly evolving, constantly introducing new processes, procedures, and advanced technologies for state-of-the-art 5th and 6th generation aircraft. This fast-paced environment requires professionals equipped with advanced critical thinking and analytical problem-solving skills. Leaders in aerospace must proactively address potential operational and production challenges to avoid costly delays and damage. Staying ahead of industry trends, investing in continuous improvement, and	Provide Specialized, Industry-Aligned Education and Training: Develop and deliver training programs that reflect the latest advancements in aerospace technologies, processes, and procedures. Collaborate with industry leaders to ensure our curriculum stays up-to-date with current practices and prepares students for the latest demands in aerospace manufacturing and technology. Integrate Critical Thinking and Problem-Solving into the Curriculum: Enhance critical thinking and analytical problem-solving skills through targeted exercises such as simulations, case studies, and strategic games that mirror real-world challenges. These activities	1. Completion of Lab and Facility Upgrades: The successful renovation and enhancement of AFAB labs with state-of-the-art tools and equipment would indicate that our facilities align with modern aerospace practices. This ensures our students gain practical, hands-on experience that mirrors industry requirements. 2. Growth in Enrollment and Program Demand: Increased enrollment in our programs, alongside positive industry feedback, would show that our training aligns with labor market needs. A rise in applications would indicate that prospective students recognize the value and relevance of the skills we offer.

						fostering innovation are essential to maintaining a competitive edge.	will help students develop the practical skills necessary for identifying and addressing complex aerospace issues. 1. Adopt Continuous Improvement Methodologies: Embed methodologies like Six Sigma and Lean Manufacturing into our curriculum to provide students with practical tools for enhancing production efficiency and effectiveness. These continuous improvement skills will be invaluable in streamlining processes and increasing productivity in aerospace settings. 2. Teach Risk Management Techniques: Offer dedicated coursework on risk management principles specific to the aerospace industry. Through case studies, simulations, and hands-on projects, train students to identify potential operational and production risks, perform evaluations, report findings, and apply predictive analytics to preemptively address potential issues. 3. Emphasize Regulatory Compliance: Ensure that	3. Student Proficiency in Critical Skills: Regular evaluations through projects, simulations, and assessments would confirm that students have developed proficiency in essential skills such as critical thinking, problem-solving, continuous improvement, risk management, and regulatory compliance. High performance in these areas would demonstrate readiness for the aerospace industry.

							students gain a deep understanding of aerospace industry regulations and standards. This training will equip them to navigate complex regulatory requirements and uphold the integrity of production processes, which is essential in an industry with stringent compliance demands. 4. Strengthen Soft Skills Development: Include training on essential soft skills such as communication, teamwork, and adaptability. These skills are critical for well-rounded professionals who can lead effectively and collaborate successfully in diverse teams within the aerospace field	
#3	Choose ILO				Choose an item.			
#4	Choose ILO				Choose an item.			

Part 4: Resource Requests that Support Program Goals (Based on the above analysis, please use the following space to document resource requests)

Type of Resource Request	Summary of Request	Which of your Program/area goals (Part 3) does this request support?	New or Repeat Request	Amount of Request, ($)	One-Time or Recurring Cost, ($)	Contact's Name
Faculty	Will need additional faculty in the future for expansion of programs		Repeat	200,000	Recurring	Alfred Brubaker
Physical/Facilities	Will need additional hangar and classrooms, offices at Fox Field Location for expansion		Repeat	500,000	One-time	Alfred Brubaker
Professional development	Will need training for new and existing programs		Repeat	$10,000 to $25,000	Recurring	Alfred Brubaker
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	

Part 5: Insert your Program Review Data here and any other supporting data. (See Part 2A above).

Required:

- Success & Retention tab
- Program Awards tab

Optional:

- Other supporting data/information

Success and Retention

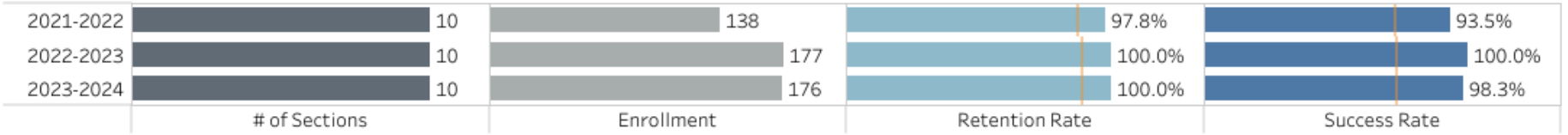
Select Academic Year: Multiple values

Select Subject: AFMT

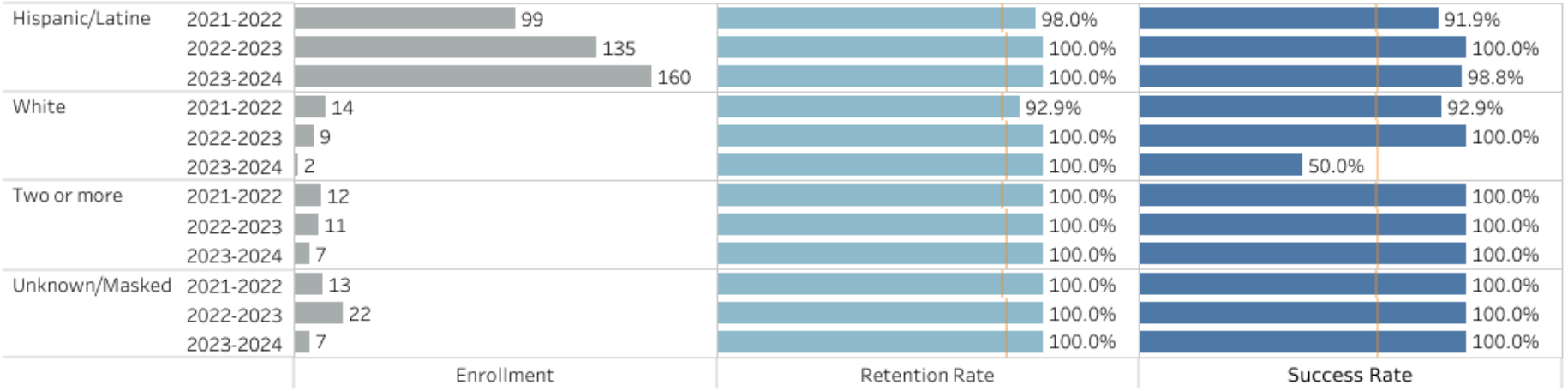
< Select subject here

AVC Retention and Success shown in vertical |

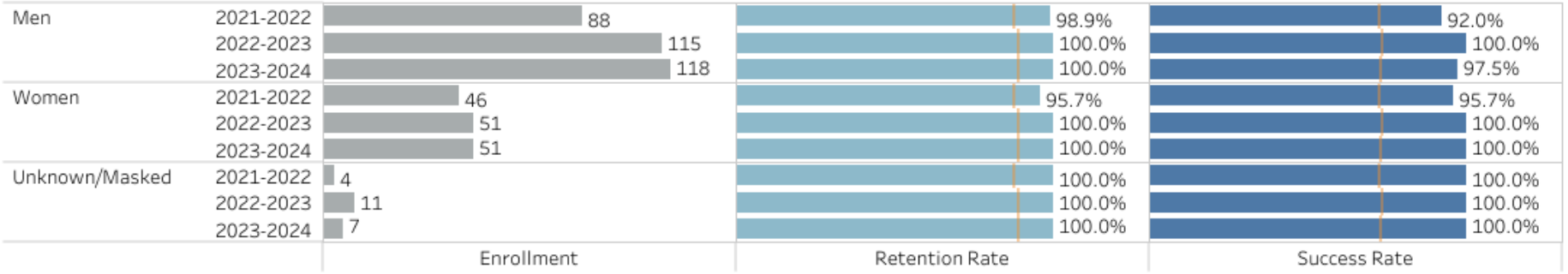
Overall Enrollments, # of Sections, Retention and Success by Year for AFMT



Enrollments, Retention & Success for AFMT by Ethnicity



Enrollment, Retention and Success for AFMT by Gender



< Click to go back

Click to go next >

Program Awards

Select Academic Year: Multiple values

Select Ethnicity: All

Gender All

(Use these filters add years & disaggregate by ethnicity and gender for both of the visualizations below)

Institutional Awards

Award Type	2021-2022	2022-2023	2023-2024
AA-T/AS-T	860	734	640
AA/AS	1366	1172	1292
Certificate	1426	1115	1108
AVC Local Certificate	189	210	194
Bachelor's	13	16	21
Non-Credit	58	38	64
Grand Total	3912	3285	3319

Select Program Majors: Airframe Manufacturing Tech

< Select Program Major for the chart below

Subject Awards for Airframe Manufacturing Tech

< Click to go back

Click to go next >

Fall 2024 Program Review Report | Instructional Areas

Division/Area Name: Aerospace, Industrial Arts, and Applied Technologies/Trades and Technologies/ Air Conditioning and Refrigeration (ACRV)	**For Planning Years: 2025-2026**
Name of person leading this review: Travis Lee	
Names of all participants in this review:	

The Air Conditioning and Refrigeration (ACRV) program at Antelope Valley College is dedicated to equipping students with the technical skills and practical experience necessary for successful careers in the HVAC/R and electro-mechanical fields. Our program is aligned with the district's mission to foster workforce readiness through high-quality education. By offering a range of certificates and degree options, ACRV empowers students to enhance their employability, meet local industry demands, and pursue lifelong learning.

Part 2A: Analyze the program review data (retrieval instructions), including equity data and any internal/external environmental scan information (e.g., surveys, interviews, focus groups, advisory groups, licensure exam scores, & job placement) to identify the program Strengths, Opportunities & Aspirations:

Use the following questions to guide your analysis:

Overall (Use the *Success & Retention* and *Program Award* tabs to inform your analysis)

- What are the success and retention rates for your discipline? Did they decrease or increase in the last year?
- What are the trends for the number of awards granted? Are the number of awards going up or down?

Equity (Use the *Success & Retention* tab including S&R by Ethnicity and Gender data to inform your analysis)

- Which ethnic / gender student groups complete their courses at the highest rates?
- Which ethnic / gender student groups experience the largest gaps when compared to the highest-performing group? Analyze the trends across the last review period. If no equity gaps are present, please reflect on the strategies that are working in the S*trengths and Accomplishments* section.

Strengths and Accomplishments: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The ACRV program has demonstrated significant strengths in its commitment to student success, evidenced by a notable retention rate of 95% for the 2022-2023 academic year, up from 91% in 2021-2022. This improvement reflects the effectiveness of our instructional methods and supportive learning environment. Our graduates have successfully secured employment in reputable organizations such as Northrop Grumman, BYD, and various local HVAC contractors, showcasing the program's relevance in meeting industry needs. Additionally, initiatives to increase awareness of the importance of obtaining certificates and degrees have positively impacted student completion rates, further solidifying our role in preparing students for rewarding careers in the HVAC/R field.

Opportunities and Challenges: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

While the ACRV program has maintained a consistent number of degrees and certificates awarded—three of each in both the 2021-2022 and 2022-2023 academic years—there remains significant opportunity for growth. One of the key challenges we face is the urgent need to hire a full-time instructor who can provide dedicated support and leadership within the program. This addition would not only enhance the quality of instruction but also facilitate the development of more innovative curriculum offerings. Strengthening our connections with local businesses is crucial for improving student job placement and internship opportunities. Addressing these challenges will enable us to better prepare our students for the evolving demands of the HVAC/R industry.

Aspirations: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The ACRV program aspires to be recognized as a leader in technical education within the HVAC/R industry, known for its innovative curriculum that incorporates the latest technologies and best practices. We aim to prepare our students not only with fundamental skills but also with the advanced knowledge necessary to excel in a rapidly evolving field. Our desired future includes expanding partnerships with local businesses to create robust pathways for student internships and job placements, thereby enhancing our graduates' employability. By fostering a culture of continuous improvement and adaptation, we envision a program that not only meets current industry demands but also anticipates future trends, positioning our students at the forefront of the HVAC/R workforce

☐ N/A

Insert Advisory Committee Recommendations here

_ To move our students toward employment in the HVACR trade. We also need to stay current in our own field of expertise. The college at this point needs to hire a full-time instructor that can lead this discipline.

_Separation of lab and lecture courses needed. Five-hour courses in the evening is a drag on both students and instructors. Can the college explore the idea of a fundamentals course? We also need to teach and proctor EPA Sec. 608 exams as a course in our program. Instructors should not be profiting from this process (conflict of interest). We need to hire more instructors for the ACRV program.

Insert Labor Market Data here https://www.labormarketinfo.edd.ca.gov/commcolleges/

TOP Code(s):

094600 Environmental Control Technology

Geography: Los Angeles County

Includes: Los Angeles County

Annual Job Openings by Occupation

SOC Code	Occupation Title (Linked to "Occupation Profile")	2020 Employment	Annual Job Openings (1)
499021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	5,860	6,530
	Total	5,860	6,530

Part 2C: Review and comment on progress toward past Course Improvement Plans

List your past **Course Improvement Plans** (CIPs) and progress toward meeting those plans.

Past Course Improvement Plans	Progress Made
Modernize laboratory equipment and materials	Initial assessment of equipment needs has begun, with plans to secure funding for upgrades.
To address the SLOs that are falling below the expected performance standards, the program must implement comprehensive changes to enhance student outcomes. It is essential to modernize our tools, materials, and teaching methods to align with current industry practices. Over the past decade, advancements driven by climate change and energy efficiency have significantly transformed the HVAC/R field. Unfortunately, some of our lab practices still rely on outdated methodologies from 20 years ago. Our objective is to update hands-on labs to reflect contemporary controls and refrigerants that students will encounter in their careers. Achieving this will require	Currently awaiting a full-time instructor to implement these changes.

investment in modern equipment and supplies, such as transitioning to lower GWP refrigerants and adopting digitally controlled refrigeration systems.	

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

List your past program review goals and progress towards those goals.

Past Goal	Progress Made
This program needs to hire a dedicated full-time instructor. The adjunct instructors would also benefit from continued education in the field in order to teach modern and current methodology	The hiring process is actively ongoing, with candidate interviews scheduled.

Part 3: Based on Part 2 above, please list program/area goals:

Program /Area Goal #	Goal Supports which:				ESP Goal Primarily Supported:	Goal (Student-focused)	Steps to be taken to achieve the goal?	Measure of Success (How would you know you've achieved your goal?)
	ILO	PLO	SLO	OO				
#1 Improve Retention and Completion Rates	ILO 4. Career and Specialized Knowledge				Goal #1 Service: Realign college policies, practices, and processes to remove barriers and to become more effective, efficient, and responsive to students, employees, and the community.	Enhance student retention (currently 95%) and completion rates for certificates and degrees.	- Analyze data to identify support strategies. - Foster faculty-student mentorship programs.	- Increase in certificate/degree completion rates beyond current levels.
#2 Expand Marketing and Outreach Efforts	ILO 1. Communication				Goal #2 Equity: Improve the college culture by becoming a more caring, welcoming, accessible, and inclusive campus.	Raise awareness of the program and its offerings to attract a diverse student population.	- Develop targeted marketing campaigns highlighting success stories. - Engage local community organizations for outreach.	- Increased enrollment numbers and diversity in the student body.

#3	ILO 2. Creative, Critical, and Analytical Thinking				Goal #5 Education: Expansion of offerings and effective course scheduling.	Enhance partnerships with local businesses for internships and job placements.	- Establish regular meetings with industry partners. - Create a structured internship program.	- Increased job placement rates and student feedback on internship experiences.
#4	ILO 3. Community /Global Consciousness				Goal #3 Resources: Increase student awareness about campus resources.	Recruit a full-time instructor to improve program leadership and curriculum development.	- Finalize hiring process and onboard new instructor. - Provide professional development opportunities for adjunct faculty.	- Successful hiring of a full-time instructor and improvement in course offerings and student satisfaction.

Part 4: Resource Requests that Support Program Goals (Based on the above analysis, please use the following space to document resource requests)						
Type of Resource Request	Summary of Request	Which of your Program/area goals (Part 3) does this request support?	New or Repeat Request	Amount of Request, ($)	One-Time or Recurring Cost, ($)	Contact's Name
Faculty	Need a full-time faculty	ALL	Repeat	3	Recurring	Dean Bormann
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	

Part 5: Insert your Program Review Data here and any other supporting data. (See Part 2A above).

Program Awards

Select Academic Year: Multiple values

Select Ethnicity: All

Gender: All

(Use these filters add years & disaggregate by ethnicity and gender for both of the visualizations below)

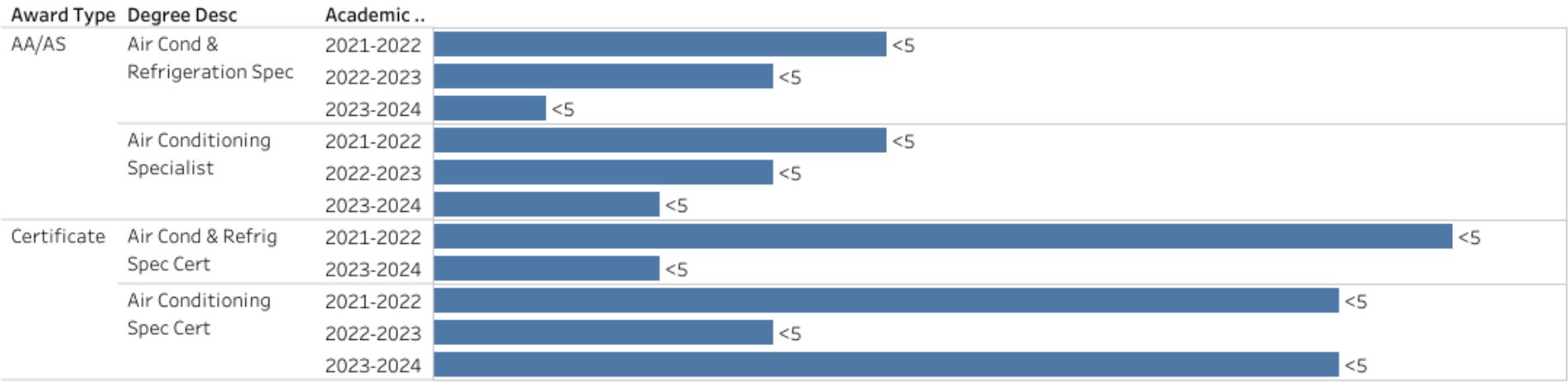
Institutional Awards

Award Type	2021-2022	2022-2023	2023-2024
AA-T/AS-T	860	734	640
AA/AS	1366	1172	1292
Certificate	1426	1115	1108
AVC Local Certificate	189	210	194
Bachelor's	13	16	21
Non-Credit	58	38	64
Grand Total	3912	3285	3319

Select Program Majors: Multiple values

< Select Program Major for the chart below

Subject Awards for Air Cond & Refrig Spec Cert, Air Cond & Refrigeration Spec, Air Conditioning Spec Cert and 1 more



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Success and Retention

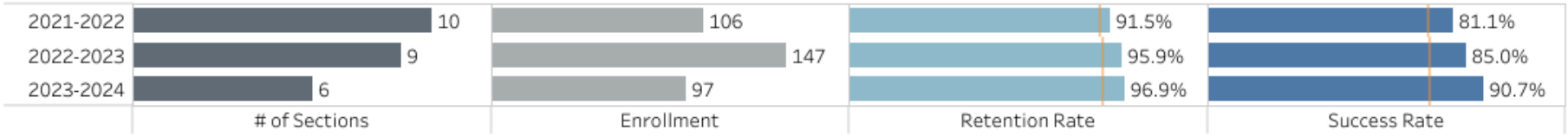
Select Academic Year: Multiple values

Select Subject: ACRV

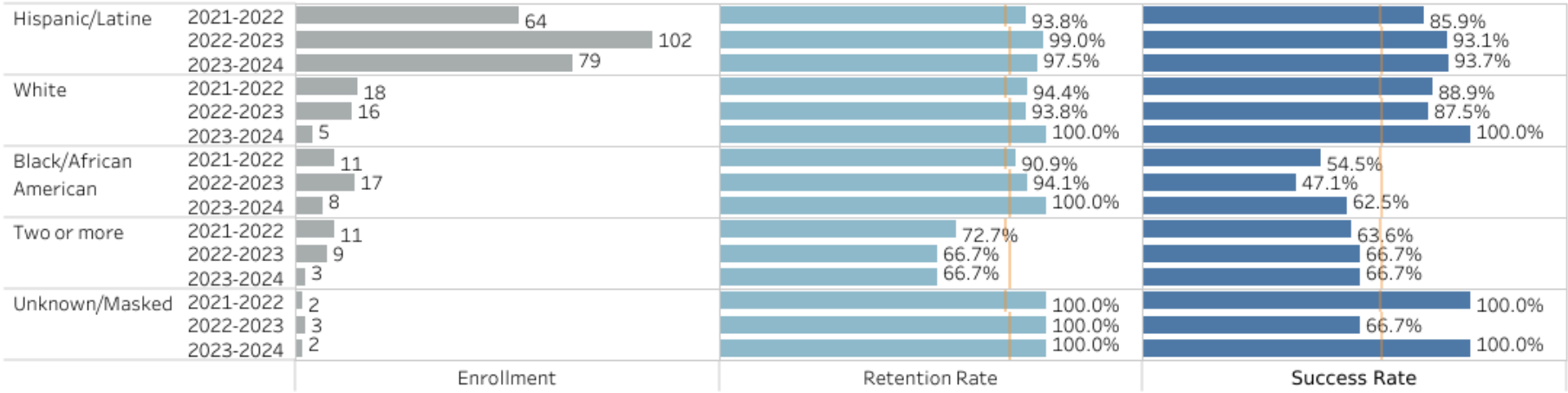
< Select subject here

AVC Retention and Success shown in vertical |

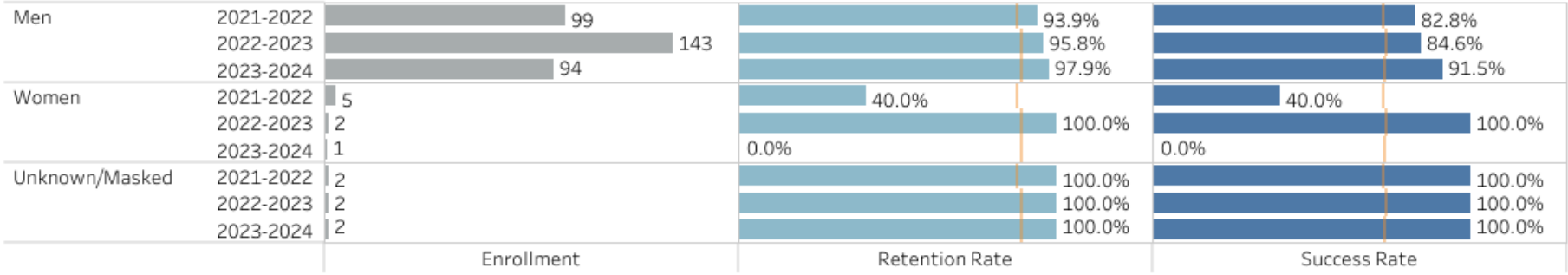
Overall Enrollments, # of Sections, Retention and Success by Year for ACRV



Enrollments, Retention & Success for ACRV by Ethnicity



Enrollment, Retention and Success for ACRV by Gender



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Division/Area Name: Aerospace, Industrial Arts, and Applied Technologies/Trades and Technologies/Auto Body (ABDY)	**For Planning Years: 2025-2026**
Name of person leading this review: Tim Sturm	
Names of all participants in this review: Tim Strum, Keith Cone, Pedro Mejia	

Part 1. Program Overview: ***Briefly describe how the program contributes to the district mission***

(The ABDY program contributes to the district mission by supporting: 1) the AVC students seeking entry level Employment in the ABDY industry. Students can acquire certs in both ABDY collision tech as well as ABDY refinishing tech. The ABDY faculty and staff are committed to providing the students with hands-on training to help them be best prepared to enter the ABDY industry with a great start to grow within an ABDY shop. Students completing the 2-year program can exit with an associate degree in science, as well as an I-CAR certificate.

Part 2A: Analyze the program review data (retrieval instructions), including equity data and any internal/external environmental scan information (e.g., surveys, interviews, focus groups, advisory groups, licensure exam scores, & job placement) to identify the program Strengths, Opportunities & Aspirations:

Use the following questions to guide your analysis:

Overall (Use the *Success & Retention* and *Program Award* tabs to inform your analysis)

- What are the success and retention rates for your discipline? Did they decrease or increase in the last year?
- What are the trends for the number of awards granted? Are the number of awards going up or down?

Equity (Use the *Success & Retention* tab including S&R by Ethnicity and Gender data to inform your analysis)

- Which ethnic / gender student groups complete their courses at the highest rates?
- Which ethnic / gender student groups experience the largest gaps when compared to the highest-performing group? Analyze the trends across the last review period. If no equity gaps are present, please reflect on the strategies that are working in the *Strengths and Accomplishments* section.

Strengths and Accomplishments: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The auto body program at our college has consistently demonstrated remarkable success in job placement and graduate accomplishments, with 15 associate degrees and 39 certificates awarded for the 2023-2024 academic year. Our graduates leave not only with hands-on skills but also with a deep understanding of industry standards and practices, making them highly sought after by employers. Over the years, we've seen positive growth in our job placement rate. Many have secured positions at leading auto repair shops, collision centers, and some have even launched their own businesses. The program's emphasis on real-world experience, coupled with strong partnerships with local businesses, ensures that students are well-prepared for the workforce. Our graduates are not just entering the field; they are making a meaningful impact, contributing innovative ideas and setting new standards in the auto body industry.

Opportunities and Challenges: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The auto body program offers a wealth of opportunities for students eager to enter a dynamic and growing field, yet it also presents significant challenges that require resilience and adaptability. As the automotive industry continues to evolve with advancements in technology, graduates can take advantage of emerging trends such as electric vehicles and advanced repair techniques. However, one major obstacle is the limited lab space, which often forces students to work outside in less-than-ideal weather conditions. This not only detracts from their training experience but can also hinder their ability to focus and perform at their best.

To help close equity gaps, we can implement several actions: expanding lab facilities to accommodate more students, providing additional resources for underrepresented groups, and creating mentorship programs that connect students with industry professionals. Additionally, offering flexible scheduling and financial support can ensure that all students have access to the training they need. While job placement rates are high, competition for positions in top-tier shops

can be intense, so fostering an inclusive environment where all students can thrive is crucial. By navigating these challenges and actively working to promote equity, students in our program are better prepared to succeed in a fast-paced environment and contribute meaningfully to the future of the auto body industry. Due to the evolving needs of our program, we would like to transition the day instructional assistant position from a 10-month instructional assistant to a 12-month role. This change will allow for better support throughout the entire year and ensure that our equipment maintenance and purchasing processes are consistently managed.

Aspirations: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

1. Curriculum Enhancement

Cutting-Edge Technology: Integrate the latest technologies in autobody repair, such as advanced diagnostic tools and eco-friendly materials.

Hands-On Experience: Expand hands-on training opportunities, including partnerships with local auto shops for real-world experience. Skill Competitions: Encourage student participation in national and regional autobody competitions to showcase skills and enhance visibility. Career Counseling: Provide comprehensive career counseling and job placement services for students.

Soft Skills Training: Incorporate soft skills training, including communication and teamwork, to prepare students for the workplace. New Courses: Introduce additional courses or special topics, such as automotive electronics or business management for aspiring shop owners.

Part 2B: (Required for CTE) External Data: Advisory Committee Recommendations & Labor Market Data

☐ N/A

Insert Advisory Committee Recommendations here (Please do not insert complete meeting minutes, but just recommendations from the advisory committee.) Tim introduced the idea of AVC wanting to offer a non-credit
Vehicle Restoration Class.
This class would be partnered with AVC's Auto Mechanic Class. The Class would be capped at 15 participants/students.
This class would help the Auto Body and Auto Mechanic programs receive facility recognition and be an outreach to the community.

Greg Borman stated this restoration class could help the student restore a car, use the programs knowledge and facility including welding equipment. This would help bring car culture into the community and generate interest

Tim explained that in the future AVC would like to move forward in getting a bigger facility for the auto body program. They have outgrown the current facility and are unable to purchase new equipment as there is no room to store it. Tim stated that they are working in the dark and weather elements. Tim requested a motion to vote on expanding the current facility:

Action Taken:
Motioned By: Michael Carey
Second By: Greg Borman
All in Favor: Unanimous
Tim Sturm Issues Discussed:

Tim opens the discussion and introduces the idea of Demolition Cars and a Race Team. The Demolition car would go to local fairs, with student involvement, that would be competitive, and a learning educational tool.
Both the demo car and race car would be used for educational purposes and used as learning tools that the students would learn and be involved with. A Strong Workforce Grant is currently being worked on for this.

The Race Car would go to an approximate half dozen events per year to showcase the car and be an outreach for the program and be involved with community. In the short time this has been researched there has been great interest shown from business owners in making donations.

Mark Halloway states this idea can't hurt, Marla Hughes agrees and later states that this could be a good tool to the younger people.

Action Taken: Tim Requested a Vote

Motion By: Edson Gonzalez
Second By: Marla Hughes
All in Favor: Unanimous

Insert Labor Market Data here https://www.labormarketinfo.edd.ca.gov/commcolleges/ Annual Job Openings by Occupation

Annual Job Openings by Occupation

SOC Code (Linked to "Occupation Profile")	Occupation Title	2020 Employment	Annual Job Openings (1)
493021	Automotive Body and Related Repairers	3,270	3,290
493022	Automotive Glass Installers and Repairers	230	270
131032	Insurance Appraisers, Auto Damage	380	230
Total		3,880	3,790

Part 2C: Review and comment on progress toward past Course Improvement Plans

List your past **Course Improvement Plans** (CIPs) and progress toward meeting those plans.

Past Course Improvement Plans	Progress Made
I-CAR development	Program has been implemented and students are using it.
Increase the number of students completing the course.	Numbers are up and is ongoing.

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

List your past program review goals and progress towards those goals.

Past Goal	Progress Made
To use Perkins and SWP grant toward programs update.	Project is complete.
Second full-time instructor.	None at this time.

Part 3: Based on Part 2 above, please list program/area goals:

Program /Area Goal #	Goal Supports which: ILO	PLO	SLO	OO	ESP Goal Primarily Supported:	Goal (Student-focused)	Steps to be taken to achieve the goal?	Measure of Success (How would you know you've achieved your goal?)
#1	ILO 4. Career and Specialized Knowledge				Goal #6 Success: Boost success rates by prioritizing the student experience.	Engaging Curriculum: Develop a curriculum that is relevant, interactive, and aligned with students'	Establish specific, measurable objectives for improving student experience and success.	Course Completion Rates: Track the percentage of students successfully completing courses or

						interests and career goals. Incorporating project-based learning and real-world applications can enhance engagement.	Involve faculty, staff, students, and administration in creating a comprehensive plan that addresses identified needs. Create opportunities for social interaction and collaboration through clubs, events, and group projects.	programs. Analyze trends in retention (students continuing from one year to the next) and graduation rates over time.
#2	ILO 4. Career and Specialized Knowledge				Goal #5 Education: Expansion of offerings and effective course scheduling.	ABDY program has put forth to AP&p a restoration course to run during the summer,	Course has been submitted and is being reviewed now. We have already hired a person to teach the class.	This is a noncredit course that will be open to the public, success will be determined by community involvement.
#3	ILO 3. Community /Global Consciousn ess				Goal #1 Service: Realign college policies, practices, and processes to remove barriers and to become more effective, efficient, and responsive to students, employees, and the community.	The ABDY program has out grown the current facility, we need to enlarge the size to better accommodate the students and the need to keep our equipment inside and out of the weather, also most body shops are developed in such a way to allow certain tasks to be done in certain areas to not damage other processes being done.	We have had our advisory committee vote on this action, and have brought it to the Deans attention, also adding it to the annual program review.	By increasing the size of the shop and not having to keep students working in the weather the program will retain more students and success rates will go up.
#4	ILO 2. Creative, Critical, and Analytical Thinking				Goal #4 Vision: Being more future-thinking, agile, innovative, and proactive.	A race car project-based learning (PBL) initiative can significantly enhance student engagement in an auto body program by offering hands-on, real-world experiences that spark interest and foster deeper learning. Here's how it can be beneficial.	We have applied for a SWP grant, that has been approved and we will continue a funding source to keep project going.	Participation in races or showcases can give students a platform to demonstrate their skills to potential employers or the community. Regular assessments and reflections during the project encourage a growth mindset and help students understand the learning process.

Part 4: Resource Requests that Support Program Goals (Based on the above analysis, please use the following space to document resource requests)

Type of Resource Request	Summary of Request	Which of your Program/area goals (Part 3) does this request support?	New or Repeat Request	Amount of Request, ($)	One-Time or Recurring Cost, ($)	Contact's Name
Physical/Facilities	To increase the size of the current facility or build new facility altogether.	#3	Repeat	unknown	One-time	Tim Sturm
Faculty	Hire a second full time instructor, to teach the Restoration class and possibly the night program.	#2	Repeat	unknown	Recurring	Tim Sturm
Physical/Facilities	Consider putting the automotive and autobody programs in the same facility or at least same complex,	#2	New	unknown	One-time	Tim Sturm, Mike Carey
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	

Part 5: Insert your Program Review Data here and any other supporting data. (See Part 2A above).

Required:

- Success & Retention tab Annual Job Openings by Occupation
- SOC Code Occupation Title
- (Linked to "Occupation Profile") 2020
- Employment Annual
- Job Openings (1)
- 493021 Automotive Body and Related Repairers 3,270 3,290
- 493022 Automotive Glass Installers and Repairers 230 270
- 131032 Insurance Appraisers, Auto Damage 380 230
- Total 3,880 3,790
- Program Awards tab
- Other supporting data/information

Success and Retention

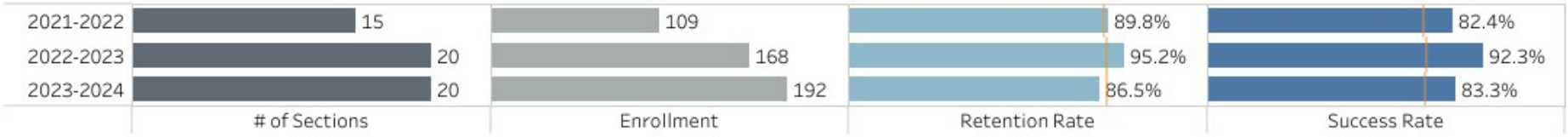
Select Academic Year: Multiple values

Select Subject: ABDY

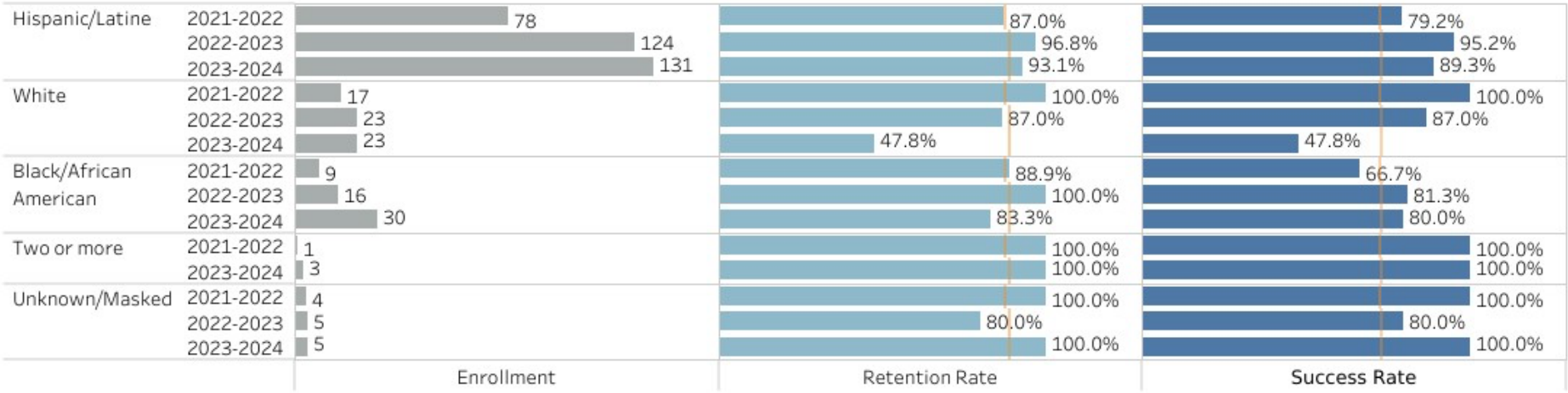
< Select subject here

AVC Retention and Success shown in vertical |

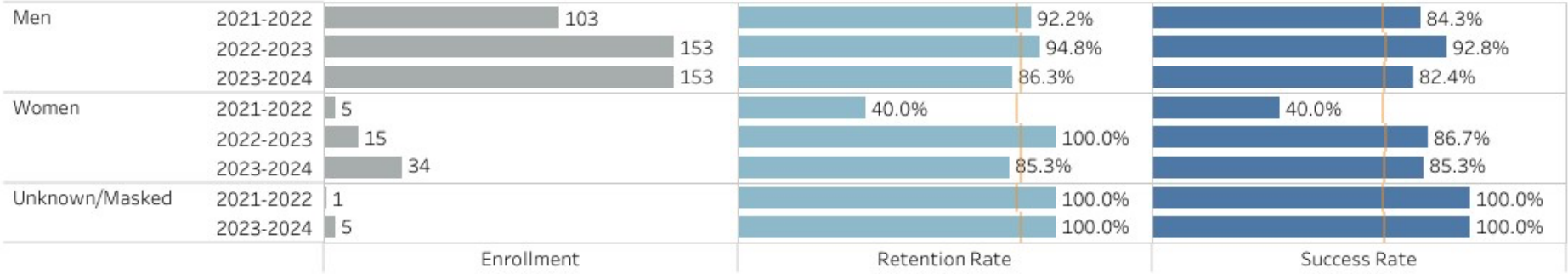
Overall Enrollments, # of Sections, Retention and Success by Year for ABDY



Enrollments, Retention & Success for ABDY by Ethnicity



Enrollment, Retention and Success for ABDY by Gender



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Click to go next >

Program Awards

Select Academic Year: Multiple values

Select Ethnicity: All

Gender All

(Use these filters add years & disaggregate by ethnicity and gender for both of the visualizations below)

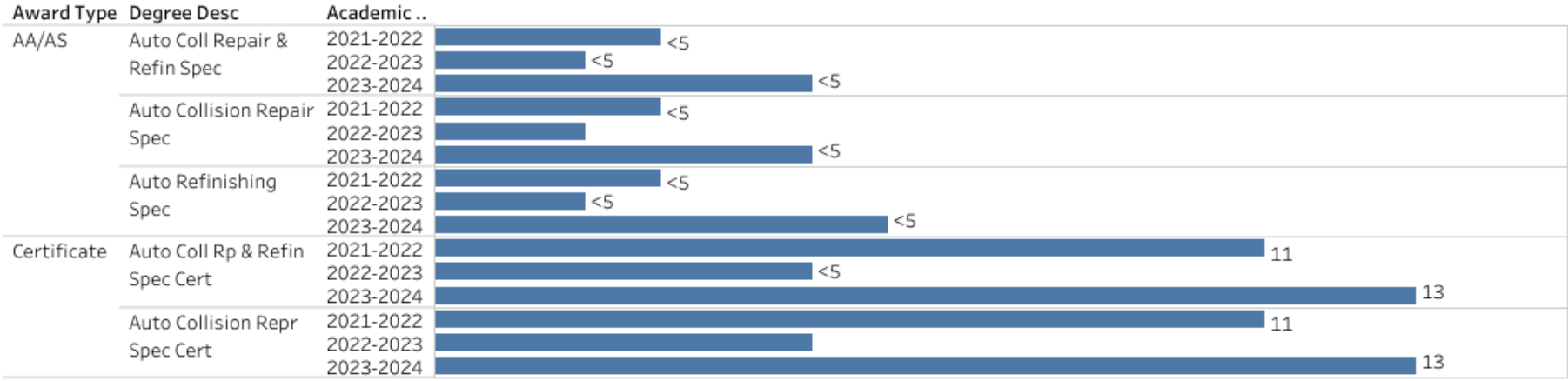
Institutional Awards

Award Type	2021-2022	2022-2023	2023-2024
AA-T/AS-T	860	734	640
AA/AS	1366	1172	1292
Certificate	1426	1115	1108
AVC Local Certificate	189	210	194
Bachelor's	13	16	21
Non-Credit	58	38	64
Grand Total	**3912**	**3285**	**3319**

Select Program Majors: Multiple values

< Select Program Major for the chart below

Subject Awards for Auto Coll Repair & Refin Spec, Auto Coll Rp & Refin Spec Cert, Auto Collision Repair Spec and 2 more



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Fall 2024 Program Review Report | Instructional Areas

Division/Area Name: Aerospace, Industrial Arts, and Applied Technologies/Trades and Technologies/ Automotive Technology (AUTO)	**For Planning Years: 2025-2026**
Name of person leading this review: Mike Carey	
Names of all participants in this review: Mike Carey	

Part 1. Program Overview: *Briefly describe how the program contributes to the district mission*

This program contributes to the college's mission by preparing students for the automotive workforce by giving them the tools they need to be active participates in the workforce.

Part 2A: Analyze the program review data (retrieval instructions), including equity data and any internal/external environmental scan information (e.g., surveys, interviews, focus groups, advisory groups, licensure exam scores, & job placement) to identify the program Strengths, Opportunities & Aspirations:

Use the following questions to guide your analysis:

Overall (Use the *Success & Retention* and *Program Award* tabs to inform your analysis)

- What are the success and retention rates for your discipline? Did they decrease or increase in the last year?
- What are the trends for the number of awards granted? Are the number of awards going up or down?

Equity (Use the *Success & Retention* tab including S&R by Ethnicity and Gender data to inform your analysis)

- Which ethnic / gender student groups complete their courses at the highest rates?
- Which ethnic / gender student groups experience the largest gaps when compared to the highest-performing group? Analyze the trends across the last review period. If no equity gaps are present, please reflect on the strategies that are working in the *Strengths and Accomplishments* section.

Strengths and Accomplishments: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

Consider the following questions:

- While our program is in a stage of growth, I would attribute that to a single-minded focus on student success and program restructuring as the main reason for our increase in numbers and retention of students. We as an automotive team, from the instructional assistant to our adjuncts, have a desire to teach and guide our students toward a future they can be proud of by offering more courses and options than have been offered in the past.

- While no data on program awards currently exists for the auto technology program, our retention and enrollment rates are increasing year over year from 2022 to 2024. I would attribute this to a new full-time instructor who brought vision and plans for student engagement and success. In addition to this I would say that revamping the program to streamline and clear up ambiguity has attracted new students to our program because it is much clearer with a pathway to completion. Also, more of the entry level courses are being offered so that students wanting to join the program have a better chance to do so.

Opportunities and Challenges: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

Consider the following questions:

- The program needs more building space. We need more classroom space, more shop space, more space for tooling the is required by todays automotive repair demands. The future programs that we want to implement require clean spaces for calibration of the advanced systems and wide-open spaces for safely working on electric and hybrid cars that ensure that students in those areas will not be hurt due to the high voltages required on those cars. In

addition to this we need more classroom space so that we can offer more classes and hire more instructors, currently we only have 2 classrooms that are full all the time because we are increasing our numbers at a rapid pace.

- Closing equity gaps in a college automotive program is crucial for creating more inclusive opportunities for all students, particularly those from historically underrepresented or disadvantaged groups. Several actions can be taken to promote equity and ensure that all students have an equal chance to succeed:
  1. Offer targeted scholarships: Provide scholarships for underrepresented groups, including women, people of color, and low-income students, to make the automotive program more accessible.
  2. Create mentorship opportunities: Connecting prospective students with mentors from similar backgrounds in the automotive industry can provide guidance, encouragement, and inspiration.
  3. Encourage inclusiveness in hands-on experiences: Ensuring that students have equal access to lab time, shop equipment, and practice opportunities will help level the playing field.

Aspirations: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

Consider the following questions:

- We want our Program to be known for greatness. We are already showing a lot of growth and higher retention rates since 2022 according to the data analysis and more female students are joining this program every semester. That means that our program is growing with all students from all backgrounds and is beginning to show that it is not only a male dominated industry, that women have a stake in it and a very viable future in this field. We also want to be known for growth within the courses that we can offer by building more classes and offering a bachelor program that will prepare the student for a strong future in the automotive field.

- The desired goal is to build an Electric vehicle class, hybrid class, diesel repair class and an automotive history class. We would also like to start building a bachelor's program so our students can reach higher goals. According to a recent conference, CCCAOE, that I attended, 79% of jobs require a bachelor's degree but only 37% of candidates have them and this would support giving our students a competitive advantage without all the costs involved.

Part 2B: (Required for CTE) External Data: Advisory Committee Recommendations & Labor Market Data

☐ N/A

Insert Advisory Committee Recommendations here (Please do not insert complete meeting minutes, but just recommendations from the advisory committee.)

1. **Need 3 instructor toolboxes to open student boxes for more student capability.**
2. **More hand tools for specialty jobs.**
3. We need **to start planning for an automotive history class as an elective.**
4. **We have an agreed upon interest in setting up an automotive club and competing in skills USA.**
5. **Reaching out to local Dealerships and independent shops to let them know about our programs and opportunities for employees to fill their needs.**
6. **We need new facilities to expand our program and build more capability. We also need more classrooms.**
7. **New Adjuncts needed for added classes**
8. **We need a baccalaureate program, diesel program, hybrid and electric program, non-credit restoration classes for community outreach and engagement.**

Insert Labor Market Data here https://www.labormarketinfo.edd.ca.gov/commcolleges/

CIP Code(s):

470604 Automobile/Automotive Mechanics Technology/Technician

Geography: Los Angeles County

Includes: Los Angeles County

Annual Job Openings by Occupation

SOC Code	Occupation Title (Linked to "Occupation Profile")	2020 Employment	Annual Job Openings (1)
493023	Automotive Service Technicians and Mechanics	13,800	14,500
	Total	13,800	14,500

Part 2C: Review and comment on progress toward past Course Improvement Plans

List your past **Course Improvement Plans** : I've only had one Advisory committee so I do not have any past course improvement plans to draw from.

Past Course Improvement Plans	Progress Made
N/A	
N/A	
N/A	
N/A	

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

List your past program review goals and progress towards those goals: As is 2C I do not have any improvement plans to draw from.

Past Goal	Progress Made
N/A	
N/A	
N/A	
N/A	

Part 3: Based on Part 2 above, please list program/area goals:

Program /Area Goal #	Goal Supports which:				ESP Goal Primarily Supported:	Goal (Student-focused)	Steps to be taken to achieve the goal?	Measure of Success (How would you know you've achieved your goal?)
	ILO	PLO	SLO	OO				
#1	ILO 2. Creative, Critical, and Analytical Thinking				Goal #6 Success: Boost success rates by prioritizing the student experience.	Engaging Curriculum: Develop a curriculum that is relevant, interactive, and aligned with students' interests and career goals. Incorporating project-based learning and real-world applications can enhance engagement.	Establish specific, measurable objectives for improving student experience and success. Involve faculty, staff, students, and administration in creating a comprehensive plan that addresses identified needs. Create opportunities for social interaction and collaboration through clubs, events, and group projects.	Course Completion Rates: Track the percentage of students successfully completing courses or programs. Analyze trends in retention (students continuing from one year to the next) and graduation rates over time.

#2	ILO 3. Community /Global Consciousness				Goal #5 Education: Expansion of offerings and effective course scheduling.	AUTO program has put forth a restoration course to run during the summer	The course has been submitted and is being reviewed now.	This is a noncredit course that will be open to the public, success will be determined by community involvement.
#3	ILO 4. Career and Specialized Knowledge				Goal #1 Service: Realign college policies, practices, and processes to remove barriers and to become more effective, efficient, and responsive to students, employees, and the community.	The AUTO program has outgrown the current facility, we need to enlarge the size to better accommodate the students and the need to keep our equipment Up to date with the new programs we are bringing on board.	We have had our advisory committee vote on this action, and have brought it to the Deans attention	By increasing the size of the shop, we will retain more students and success rates will go up.
#4	ILO 4. Career and Specialized Knowledge				Goal #4 Vision: Being more future-thinking, agile, innovative, and proactive.	A race car project-based learning (PBL) initiative can significantly enhance student engagement in an automotive program by offering hands-on, real-world experiences that spark interest and foster deeper learning.	We have applied for a SWP grant that has been approved and we will continue a funding source to keep project going.	Participation in races or showcases can give students a platform to demonstrate their skills to potential employers or the community. Regular assessments and reflections during the project encourage a growth mindset and help students understand the learning process.

Part 4: Resource Requests that Support Program Goals (Based on the above analysis, please use the following space to document resource requests)

Type of Resource Request	Summary of Request	Which of your Program/area goals (Part 3) does this request support?	New or Repeat Request	Amount of Request, ($)	One-Time or Recurring Cost, ($)	Contact's Name
Physical/Facilities	To increase the size of the current facility or build new facility altogether.	3	Repeat	Unknown	One-time	Mike Carey
Faculty	Hire a second full time instructor, to teach the new classes we want to bring to our program.	2	Repeat	Unknown	Recurring	Mike Carey
Physical/Facilities	Consider putting the automotive and autobody programs in the same facility or at least same complex,	3	New	Unknown	One-time	Tim Sturm, Mike Carey
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	

Part 5: Insert your Program Review Data here and any other supporting data. (See Part 2A above).
Required:

CIP Code(s):

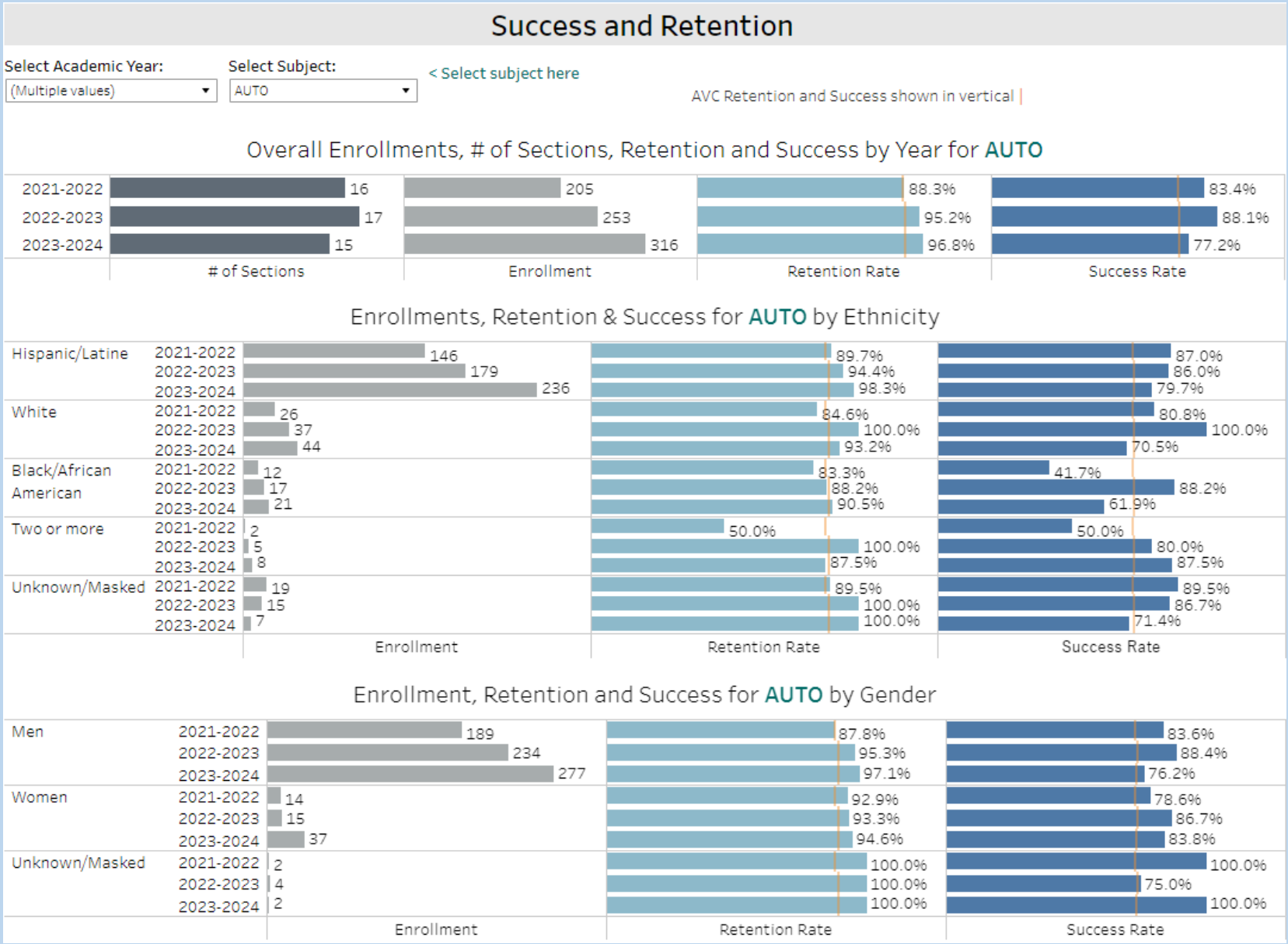
470604 Automobile/Automotive Mechanics Technology/Technician

Geography: Los Angeles County

Includes: Los Angeles County

Annual Job Openings by Occupation

SOC Code	Occupation Title (Linked to "Occupation Profile")	2020 Employment	Annual Job Openings (1)
493023	Automotive Service Technicians and Mechanics	13,800	14,500
	Total	13,800	14,500



- No program data exists currently for the Automotive technology program

Fall 2024 Program Review Report | Instructional Areas

Division/Area Name: Aerospace, Industrial Arts, and Applied Technologies/Trades and Technologies/ Electrical Technology (ELEC)	**For Planning Years: 2025-2026**
Name of person leading this review: Miguel Rodriguez	
Names of all participants in this review: Miguel Rodriguez	

Part 1. Program Overview: *Briefly describe how the program contributes to the district mission*

The ELEC program specifically contributes to the district mission by supporting students seeking career technical education to enter the workforce or enhance their knowledge with an Electrical Technology Certificate & Degree.

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.

Part 2A: Analyze the program review data (retrieval instructions), including equity data and any internal/external environmental scan information (e.g., surveys, interviews, focus groups, advisory groups, licensure exam scores, & job placement) to identify the program Strengths, Opportunities & Aspirations:

Strengths and Accomplishments: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The Electrical Technology Program provides necessary coursework for State licensing and remains current on Accreditation curriculum. 2023-2024 success rates in ELEC courses remain steady at 88.3% vs. 73.3% 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 2023-2024 has increased with student retention rates increasing as well, 95.5% vs. 89.0% AVC annual, trending an overall positive direction for the program. An equivalency has been approved to employ highly skilled electricians with experience in working with electrical trainees. More students are getting their electrical trainee card to complete their hours under a contractor. The Electrical Technology Program will acquire a lab/lecture room at the Palmdale Center. The learning center has hired one of the Electrical Technology program students to tutor. Ladder/logic program constructor is now available for students in DL – 111 and Learning Center. This will help with the success rate for students when working on motor controls. Also, with addition of the Outage Outlaws Clubs to promote diversity into the program and electrical field. This will promote diversity and expand the program enrollment. Enrollments, Retention & Success for ELEC by Ethnicity. Hispanic/Latino retention rate 95.5% vs success rate 89.0%. Black/African American retention rate 92.9% vs success rate 81.0%. White retention rate 96.5% vs success rate 87.1%.

Opportunities and Challenges: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

Students leave the program to work for entry level jobs without completing a certificate or degree. We need to counsel students on the importance of a degree for future improved earnings and career advancement. 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. The program would also benefit from a financial investment by the college in a professional marketing firm for all the Applied Tech and Industrial Arts programs as society shifts to more traditional trade driven career choices. This is including social media.

Aspirations: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

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 Northrop 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 DPW, Magic Mountain, Edison, Metro, Amtrak, LADWP, City of Palmdale, Local Contractors, local school districts, as well as Los Angeles County agencies. We would like to create a dedicated pipeline with sources of employment for all students as they complete the curriculum requirements and bridge the gap from education to employment.

Part 2B: (Required for CTE) External Data: Advisory Committee Recommendations & Labor Market Data

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 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, Fluke meter testing, NIMS and or Go Green Renewables? Action Items: motion proposed more hands-on lab time with digital timers for lighting, occupancy sensors, photo electric sensors, VFDs for motor control, metal stud framing for commercial wiring, expanded work in single phase 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 such as Solar Energy courses or possible COR revisions to the program. Motion proposed to seek out instructor certification. A motion was passed to obtain faculty professional development for staff to become certified instructors in these areas. 6 yes votes. A motion was passed to move this item forward for funding/resource request, 6 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. The ELEC program meets face to face. Over the course of 2020, online courses were offered in which simulating software has been introduced. 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 computer aided software 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 in a limited lab space environment. Software such as VFD programming, Scada update and Micrologix 1400, SkyCAD 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, 6 yes votes.

3) Facilities Update Lecture/Lab Space, Discussion Item: The Electrical Technology Program has been moved to the new Discovery Lab Building. Lab is held in DL 131 and lecture in DL 111. The program lost access to the adjoining outdoor space used for large 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 several years' experience has further reinforced the need for students to work on individual projects, as well as group projects, which require more individualized tools and equipment, as well as space to store them. What recommendations as a committee member would you offer to better prepare the ELEC program for this tentative move? Would you support a motion to increase the number of days and times that classes are offered to fully utilize the new space? Would you support a motion to hire additional staff to teach on additional days/times? Would you support a motion to seek additional lecture/lab space scheduling? Would you support a motion to move any or all these items forward for funding/request? Action Item: motion proposed that lab space is essential for the development of qualified students in the electrical field. The amount of large equipment needed for students to be exposed to industrial electrical settings, would be tremendously beneficial. The need for space for our students and program to grow is vital and must continue to be addressed. A motion was proposed to ensure that students have enough space to complete competencies without compromise to safety specially in ELEC 140 – Commercial Wring where students must use pipe benders and to bend five-foot raceways (EMT). A motion was proposed to apply for funding/resources to properly set up the new lab space after moving in. To include workstations, supplies, and storage. Hiring additional staff, another full-time instructor, a dedicated student worker, to help with maximizing the use of the new facility space with the addition of more

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, 6 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, 24 laptops that may handle four crucial software, equipment and teaching supplies, 3-D VR that would help students with real life scenarios, snap circuits, and HMI for PLC. Infrared Thermography. Solar programs and two solar projects for the electrical technology program would give student real life experience in the role of installation. 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. What types of innovative or industry standard instructional supplies and equipment would you suggest we provide to keep our students relevant? Would you support a motion to request program support through district operating funds, CalWORKs Block Grant for lab equipment and Prop 20 funding for instructional supplies? Would you support a motion to apply/request for funding for updated lecture/lab equipment & supplies with Perkins and Strong Workforce resources as needed to keep current with technology and produce a stronger workforce? Would you support a motion to move this item forward for funding/resource request? Action Items: motion proposed the program procure funding for individual lab stations for three phase transformers with taps, troubleshooting motor control modules, dissectible motors, comprehensive new motor control panels, as well as agenda items 2, 3 & 4. Motion passed to request program support through district operating funds, CalWORKs Block Grant for lab equipment and Prop 20 funding for instructional supplies, 6 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, 6 yes votes.

Projections of Employment by Occupation, 2020 - 2030
Occupations Matched to CIP Code(s):
460302 Electrician
Geography: Los Angeles County
Counties: Los Angeles County

Annual Job Openings by Occupation

SOC Code	Occupation Title	2020 Employment	Annual Job Openings
472111	Electricians	70,300	91,410
471011	First-Line Sup/Mgrs	74,100	83,580
473013	Helpers--Electricians	2,900	3,900
492098	Security and Fire Alarm Inst	11,200	14,570
	Total	158,500	193,460

Part 2C: Review and comment on progress toward past Course Improvement Plans

It was the Electrical Technology Programs action plan to continue to build/sustain student success rates in all outcomes as we transition to a new environment in a new building with unknown challenges. 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.

Part 2D: 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 Industrial Arts & Applied Tech 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 tend to leave the program before completion of their program once employment is attained. This item will remain on the 2024-2025 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 Industrial Arts & Applied Tech. programs, as society shifts to more traditional trade driven career choices, to raise awareness in programs the college has to offer. and enhance enrollment. This item will remain on the 2024-2025 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 Industrial Arts & Applied Tech, job placement specialist continue to explore these community relationships and develop a guided pathway to employment. This item will remain on the 2024-2025 goal list.

#4 Update Instructional Supplies and Lab Equipment Consistent with Industry Standards and Innovative Technology: 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 plan to continue to build/sustain student success rates in outcomes as we transition to a new environment with unknown challenges and continue to update/replace equipment. 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 2024-2025 goal list.

Part 3: Based on Part 2 above, please list program/area goals for 2023-2024:

Program /Area Goal #	Goal Supports which:				EMP Goal Primarily Supported:	Description of Goal	Steps to be taken to achieve goal?	Measure of Success (How would you know you've achieved your goal?)
	ILO	PLO	SLO	OO				

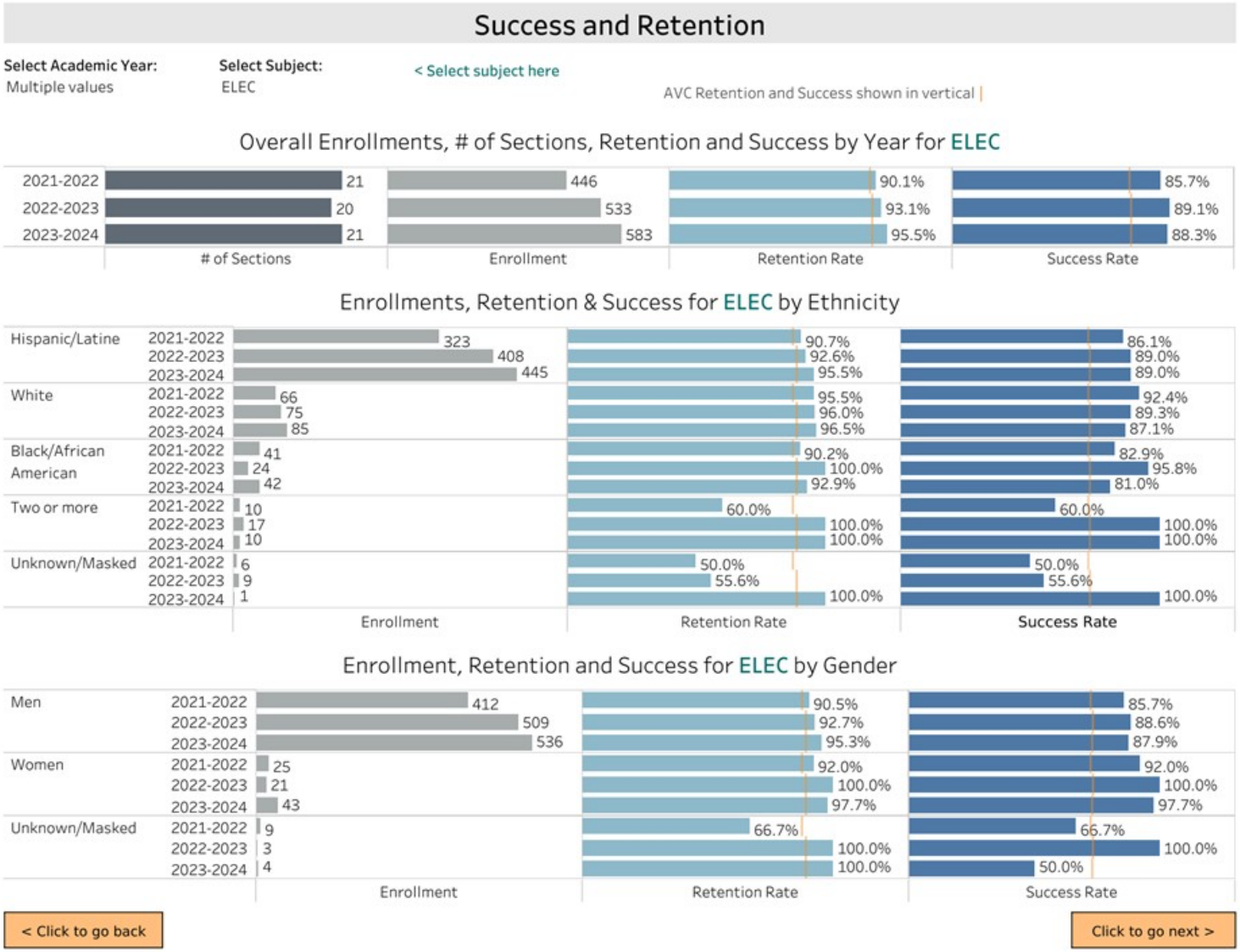
#1 Retention/ Completion of Program Certification & Degree	ILO #1, 2 & 4				EMP #1 & 3	Improve/Increase the number of students retained in the program, completing a certificate, and getting a degree.	Faculty to work with current Industrial Arts & Applied Tech. counselors and express to students the importance of striving for educational completion.	More students are completing a certificate and degree.
#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, visiting schools, campus tours, and advertising.	Increased enrollment
#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 Industrial Arts & Applied Tech job placement specialist to find local businesses for possible apprenticeship /employment placement	More students completing a certificate or degree that gain employment.
#4 Instructional Supplies and Lab Equipment:	ILO # 2 & 3	PLO #2 & 4			EMP #2 & 5	Update instructional supplies/lab equipment consistent with industry standards/ innovative technology to continue student success in program outcomes for analyzing, evaluating, and repairing various electrical systems.	Obtain 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 better prepare students for employment.	Improved outcomes data and student success rates.

Part 4: Resource Requests that Support Program Goals (Based on the above analysis, please use the following space to document resource requests)

Type of Resource Request	Summary of Request	Which of your Program/area goals (Part 3) does this request support?	New or Repeat Request	Amount of Request, ($)	One-Time or Recurring Cost, ($)	Contact's Name
Faculty	Another FT to assist with the load of one FT. Allow to open more courses.	#1, #2, #3, #4	Repeat	$200,000	Recurring	
Supplies	The electrical field continues to advance. Keeping students up to date will further assist in retention and success rate.	#1, #4	Repeat	$100,000	Recurring	
Classified Staff	A TA would help with gathering supplies and allowing the FT to focus on program review and students	#1	Repeat	$100,000	Recurring	
Technology	The industry continues to change, and as new electrical systems are available, we must introduce to our students to maintain competitive.	#1, #3, #4	Repeat	$300,000	Recurring	

Physical/Facilities	More space for bigger equipment, such as MCC buckets and mock training for real life scenarios.	#1, #4	Repeat	$500,000	Recurring	

Part 5: Insert your Program Review Data here and any other supporting data. (See Part 2A above).
Required:



Program Awards

Select Academic Year: Multiple values

Select Ethnicity: All

Gender All

(Use these filters add years & disaggregate by ethnicity and gender for both of the visualizations below)

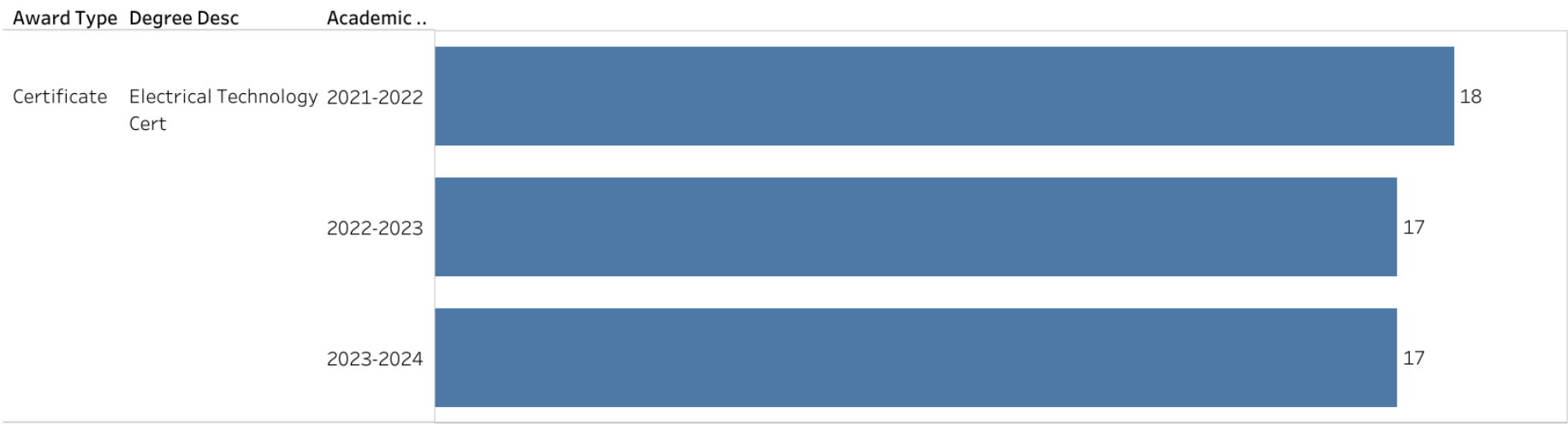
Institutional Awards

Award Type	2021-2022	2022-2023	2023-2024
AA-T/AS-T	860	734	640
AA/AS	1366	1172	1292
Certificate	1426	1115	1108
AVC Local Certificate	189	210	194
Bachelor's	13	16	21
Non-Credit	58	38	64
Grand Total	3912	3285	3319

Select Program Majors: Electrical Technology Cert

< Select Program Major for the chart below

Subject Awards for Electrical Technology Cert



< Click to go back

Click to go next >

Division/Area Name: Aerospace, Industrial Arts, and Applied Technologies/Trades and Technologies/ Electronics Technology (ELTE)	**For Planning Years: 2025-2026**
Name of person leading this review: Rick Motawakel	
Names of all participants in this review: Rick Motawakel, Richard Chapman	

Part 1. Program Overview: ***Briefly describe how the program contributes to the district mission***

The mission of the Electronics Technology program is to provide comprehensive and technical education to a diverse community of learners to prepare the student for employment as an electronic technician. Electronics Technology programs take 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.

Part 2A: Analyze the program review data (retrieval instructions), including equity data and any internal/external environmental scan information (e.g., surveys, interviews, focus groups, advisory groups, licensure exam scores, & job placement) to identify the program Strengths, Opportunities & Aspirations:

Use the following questions to guide your analysis:

Overall (Use the *Success & Retention* and *Program Award* tabs to inform your analysis)

- What are the success and retention rates for your discipline? Did they decrease or increase in the last year?
- What are the trends for the number of awards granted? Are the number of awards going up or down?

Equity (Use the *Success & Retention* tab including S&R by Ethnicity and Gender data to inform your analysis)

- Which ethnic / gender student groups complete their courses at the highest rates?

Which ethnic / gender student groups experience the largest gaps when compared to the highest-performing group? Analyze the trends across the last review period. If no equity gaps are present, please reflect on the strategies that are working in the S*trengths and Accomplishments* section.

Strengths and Accomplishments: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The Electronics Technology program ELTE major enrollment growth occurred in the last four years. All core courses were updated to industry standards. The department has started offering a new certificate for this program and it was approved by the chancellor's office. The certificate is an 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 industry requests and needs.

Two 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 needs for electronics/avionics technicians. The ELTE program hosted guest speakers from Northrop Grumman, FAA, Edwards Air Force Base and NASA to address students understanding of their expectation and hiring procedures. Throughout the school years, Field Trips were taken to FAA, Edwards Air Force Base and NASA. Each outing explores aerospace technical shops and historical significance and provides 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
The number of sections offered is higher than in the last four years
Retention, Success, Number of Sections, and Enrolment in ELTE are higher than AVC in the last four years
FTEF/FTES and WSCH/FTEF are higher than in the last two years

Opportunities and Challenges: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

Electronics Technology is a high-tech program. It's always in need of UpToDate equipment to keep up with industry needs. The program will need new equipment for the laboratory.

Aspirations: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

Electronics technology is part of the aerospace industry. Students graduating from this program will get a job in the aerospace industry.

- The program has 95% job placement for graduates
- All courses that were taught during the four years conducted assessment on SLOs
- Enrollment is higher in the program than in the 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 are higher than in the last two years

Part 2B: (Required for CTE) External Data: Advisory Committee Recommendations & Labor Market Data

☐ N/A

Insert Advisory Committee Recommendations here (Please do not insert complete meeting minutes, but just recommendations from the advisory committee.)

Insert Labor Market Data here https://www.labormarketinfo.edd.ca.gov/commcolleges/

Annual Job Openings by Occupation

SOC Code (Linked to "Occupation Profile")	Occupation Title	2020 Employment	Annual Job Openings (1)
173012	Electrical and Electronics Drafters	3,200	3,490
Total		3,200	3,490

(1) Total Job Openings are the sum of new jobs from growth plus net replacements. Annual job openings are total job openings divided by the number of years in the projection period.

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 industry met last October. The group suggested having 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 them provided 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 2C: Review and comment on progress toward past Course Improvement Plans

List your past **Course Improvement Plans** (CIPs) and progress toward meeting those plans.

The Electronics Technology program ELTE major enrollment growth occurred in the last four years. All core courses were updated to industry standards. 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 enrolment on this course has always been over the capacity of the class. This course needs special tools and parts for students to learn and prepare for industry standards.

The department has started offering a new certificate for this program and it was approved by the chancellor's office. The certificate is an 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 industry requests and needs.

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 needs for electronics/avionics technicians. The ELTE program hosted guest speakers from Northrop Grumman, FAA, Edwards Air Force Base and NASA to address students understanding of their expectation and hiring procedures.

Throughout the school years, Field Trips were taken to FAA, Edwards Air Force Base and NASA. Each outing explores aerospace technical shops and historical significance and provides 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 95% job placement for graduates
- All courses that were taught during the four years conducted assessment on SLOs
- Enrollment is higher in the program than in the 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 are higher than in the last two years

Up to date equipment for the lab	Equipment purchased
Upgrading the white board for students to see the board	On order
Rearranging the classroom for students to see the board	It's done

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

List your past program review goals and progress towards those goals.

	Progress Made
Increase efficient and effective use of resources: Technology; Facilities; Human Resources; Business Services.	On going
Advance more students to college-level coursework-Develop and implement effective placement tools.	On going
Focus on utilizing proven instructional strategies that will foster transferable intellectual skills.	On going

Part 3: Based on Part 2 above, please list program/area goals:								
Program /Area Goal #	**Goal Supports which:**				**ESP Goal Primarily Supported:**	**Goal** (Student-focused)	**Steps to be taken to achieve the goal?**	**Measure of Success** (How would you know you've achieved your goal?)
	ILO	**PLO**	**SLO**	**OO**				
#1	Choose ILO	2	1		Goal #1 Service: Realign college policies, practices, and processes to remove barriers and to become more effective, efficient, and responsive to students, employees, and the community.		yes	Understands and applies personal concepts of integrity, ethics, self-esteem, lifelong learning, while contributing to the well-being of society and the environment
#2	Choose ILO	3	2		Goal #6 Success: Boost success rates by prioritizing student experience.		yes	
#3	Choose ILO	4	2		Goal #5 Education: Expansion of offerings and effective course scheduling.		yes	
#4	Choose ILO				Goal #2 Equity: Improve the college culture by becoming a more caring, welcoming, accessible, and inclusive campus.		yes	

Part 4: Resource Requests that Support Program Goals (Based on the above analysis, please use the following space to document resource requests)

Type of Resource Request	Summary of Request	Which of your Program/area goals (Part 3) does this request support?	New or Repeat Request	Amount of Request, ($)	One-Time or Recurring Cost, ($)	Contact's Name
Faculty			New		One-time	
Classified Staff			Repeat		One-time	
Supplies			Repeat		Recurring	
Professional development			Repeat		Recurring	
Technology			New		Recurring	

Part 5: Insert your Program Review Data here and any other supporting data. (See Part 2A above).

Required:

- Success & Retention tab
- Program Awards tab

Optional:

- Other supporting data/information

Success and Retention

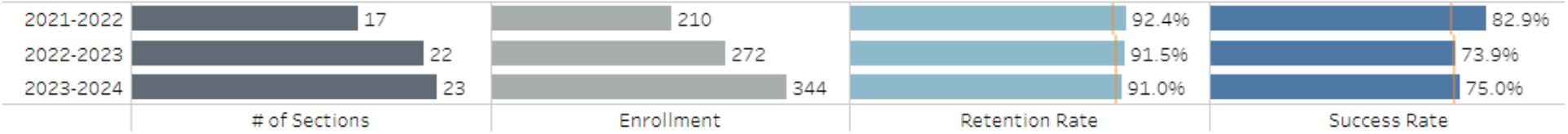
Select Academic Year: (Multiple values)

Select Subject: ELTE

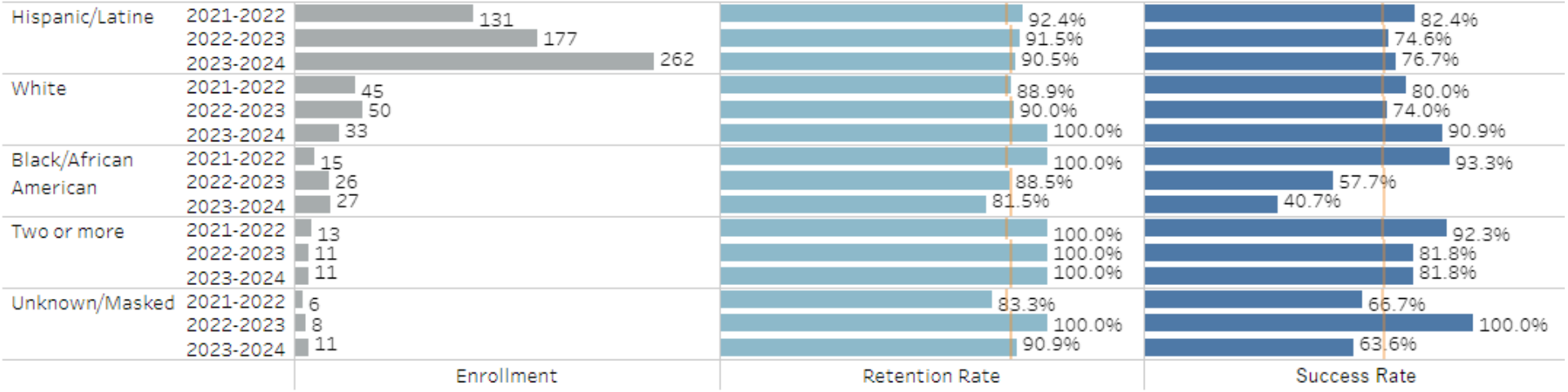
< Select subject here

AVC Retention and Success shown in vertical |

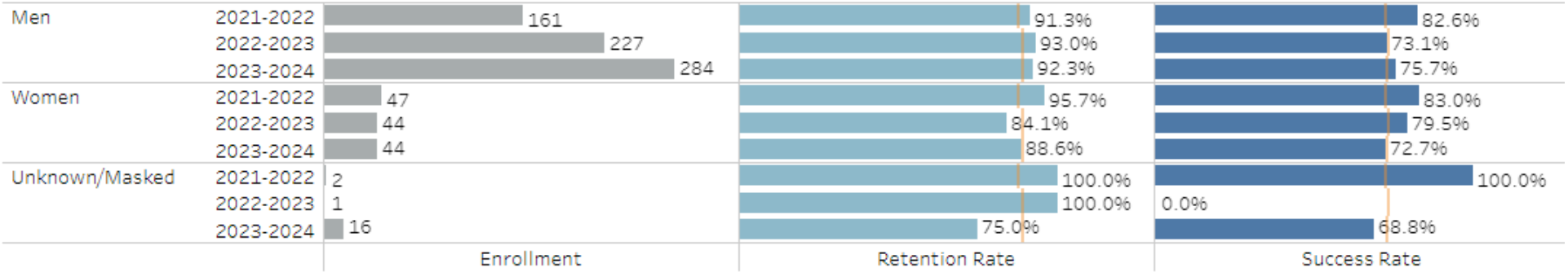
Overall Enrollments, # of Sections, Retention and Success by Year for **ELTE**



Enrollments, Retention & Success for **ELTE** by Ethnicity



Enrollment, Retention and Success for **ELTE** by Gender



Fall 2024 Program Review Report | Instructional Areas

Division/Area Name: Aerospace, Industrial Arts, and Applied Technologies/Trades and Technologies/ Industrial Manufacturing Technician Apprenticeship (IMTA)	**For Planning Years: 2025-2026**
Name of person leading this review: Travis Lee	
Names of all participants in this review:	

The faculty and staff of the IMTA program and AVC are dedicated to providing students with the hands-on training required to enter into the Industrial Manufacturing technician journey workers industry with the co-operation 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 Standard (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 well-being 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 specially 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.

Part 2A: Analyze the program review data (retrieval instructions), including equity data and any internal/external environmental scan information (e.g., surveys, interviews, focus groups, advisory groups, licensure exam scores, & job placement) to identify the program Strengths, Opportunities & Aspirations:

Use the following questions to guide your analysis:

- This Program is Directly connected to BYD

Strengths and Accomplishments: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The IMTA program has seen successful outcomes, with students completing the curriculum and receiving certificates. Notably, many graduates have secured employment with BYD, contributing to the local workforce in Lancaster, CA. The program's connection with industry partners enhances student opportunities and promotes community engagement. for year 2022-2023 the IMTA program was awarded 18 certificates.

Opportunities and Challenges: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

While the IMTA program has demonstrated success in student placements, there is a pressing need for reliable transportation to facilitate student access to training sites. Additionally, acquiring updated equipment is essential for maintaining high standards of training and ensuring students are job-ready. Addressing these logistical challenges is critical for sustaining enrollment and student success.

Aspirations: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The IMTA program aims to advance training in the assembly of electric buses, positioning graduates at the forefront of a rapidly evolving industry. Continued development and expansion of the program will play a vital role in local job placement and economic growth.

☐ N/A

Insert Advisory Committee Recommendations here. No Recommendations at this time

Insert Labor Market Data here https://www.labormarketinfo.edd.ca.gov/commcolleges/

CIP Code(s):

150613 Manufacturing Technology/Technician

Geography: Los Angeles County

Includes: Los Angeles County

Annual Job Openings by Occupation

SOC Code	Occupation Title (Linked to "Occupation Profile")	2020 Employment	Annual Job Openings (1)
173026	Industrial Engineering Technicians	640	620
	Total	640	620

Part 2C: Review and comment on progress toward past Course Improvement Plans

List your past **Course Improvement Plans** (CIPs) and progress toward meeting those plans.

Need Full time Faculty	Hiring Search as begun

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

List your past program review goals and progress towards those goals.

Past Goal	Progress Made
No Data Accessible	

Part 3: Based on Part 2 above, please list program/area goals:								
Program /Area Goal #	**Goal Supports which:**				**ESP Goal Primarily Supported:**	**Goal** (Student-focused)	**Steps to be taken to achieve the goal?**	**Measure of Success** (How would you know you've achieved your goal?)
	ILO	**PLO**	**SLO**	**OO**				
#1	Choose ILO				Choose an item.	No Data Accessible		
#2	Choose ILO				Choose an item.			
#3	Choose ILO				Choose an item.			
#4	Choose ILO				Choose an item.			

Part 4: Resource Requests that Support Program Goals (Based on the above analysis, please use the following space to document resource requests)

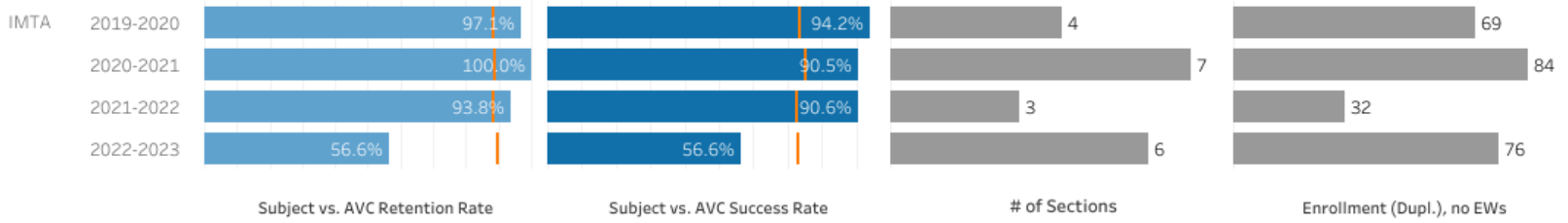
Type of Resource Request	Summary of Request	Which of your Program/area goals (Part 3) does this request support?	New or Repeat Request	Amount of Request, ($)	One-Time or Recurring Cost, ($)	Contact's Name
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	
Choose an item.			Choose an item.		Choose an item.	

Part 5: Insert your Program Re

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

Select Subject	Select Subject again	Select Program Major(s)	Academic Year
IMTA	IMTA	Indust Manuf Tech Apprent (IMTA)	Multiple values

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



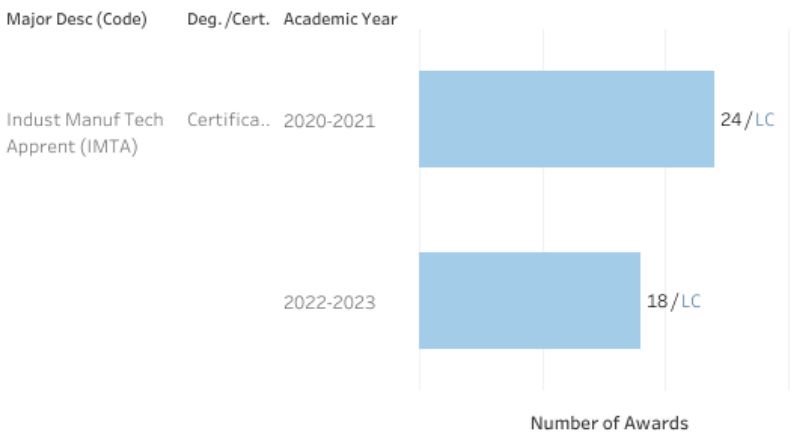
Enrollment and Number of Sections by *Modality* in IMTA

	Instr. Method	2019-2020	2020-2021	2021-2022	2022-2023
Number of Sections	Traditional	4	7	3	6
Enrollment	Traditional	73	84	32	76

Enrollment and Number of Sections by *Location* in IMTA

	Location	2019-2020	2020-2021	2021-2022	2022-2023
Number of Sections	Lancaster		2		1
	Palmdale	4	5	3	5
Enrollment	Lancaster		20		16
	Palmdale	73	64	32	60

Number of Program Awards in Indust Manuf Tech Apprent (IMTA)



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

	Fall 2019	Fall 2020	Fall 2021	Fall 2022
PT (Adjunct) FTEF	0.4	1.1	0.3	0.3
TOTAL FTEF	0.4	1.1	0.3	0.3
FTES	4.1	5.6	0.9	2.3
FTES/FTEF Ratio	10.3	5.1	3.2	8.5
WSCH/FTEF Ratio	307.5	152.2	96.8	255.6
WSCH	123.0	167.4	25.8	

Click here to see AVC's Program awards dashboard

Last Update: 09/30/2022 .Data Sources: AVC's Banner, ARGOS reports

view Data here and any other supporting data. (See Part 2A above).

Fall 2024 Program Review Report | Instructional Areas

Division/Area Name: Aerospace, Industrial Arts, and Applied Technologies/Trades and Technologies/Welding (WELD)	**For Planning Years: 2025-2026**
Name of person leading this review: Travis Lee	
Names of all participants in this review: Travis Lee, Caleb Healey	

Part 1. Program Overview: ***Briefly describe how the program contributes to the district mission***

Antelope Valley College's welding program aligns seamlessly with our institution's mission to provide a quality, comprehensive education to a diverse population of learners. By equipping students with the essential skills and knowledge needed for a successful career in welding, we are actively contributing to student success and offering valuable opportunities for personal and professional growth. Our program's commitment to excellence in training and service not only benefits our students but also serves as a valuable resource to our community, meeting the workforce needs and enhancing the economic vitality of the region.

Part 2A: Analyze the program review data (retrieval instructions), including equity data and any internal/external environmental scan information (e.g., surveys, interviews, focus groups, advisory groups, licensure exam scores, & job placement) to identify the program Strengths, Opportunities & Aspirations:

Use the following questions to guide your analysis:

Overall (Use the *Success & Retention* and *Program Award* tabs to inform your analysis)

- What are the success and retention rates for your discipline? Did they decrease or increase in the last year?
- What are the trends for the number of awards granted? Are the number of awards going up or down?

Equity (Use the *Success & Retention* tab including S&R by Ethnicity and Gender data to inform your analysis)

- Which ethnic / gender student groups complete their courses at the highest rates?
- Which ethnic / gender student groups experience the largest gaps when compared to the highest-performing group? Analyze the trends across the last review period. If no equity gaps are present, please reflect on the strategies that are working in the *Strengths and Accomplishments* section.

Strengths and Accomplishments: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The Welding program at Antelope Valley College showcases significant strengths, particularly in its robust hands-on training and educational outcomes. With the recent expansion to Palmdale, specifically focusing on aerospace welding, enrollment has seen a notable increase, reflecting the program's ability to adapt to industry demands. The program's commitment to excellence is further highlighted by a remarkable 50% increase in students gaining welding certifications compared to previous years. This growth underscores the effectiveness of implemented practices aimed at enhancing student success and retention, solidifying the program's reputation as a leading choice for aspiring welders. Additionally, the achievement of 11 AS degrees and 16 certificates in the 2023-2024 academic year stands as a testament to the program's dedication to equipping students with valuable skills for their future careers.

Opportunities and Challenges: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The Welding program at Antelope Valley College faces both opportunities and challenges that can shape its future growth. One significant opportunity lies in the need for a larger secondary lab, which would enable the program to accommodate more students and expand class sizes beyond the current cap of as low as five students in certain areas, due to equipment and space limitations. This expansion could facilitate increased enrollment and provide a more comprehensive training experience. On the other hand, the program is already achieving impressive success and retention rates, with equity metrics showing up to 100% in some areas and no lower than 95% in others. This high level of achievement indicates a strong foundation from which to build, but it also highlights the challenge of maintaining such excellence as the program grows. Balancing the demand for more space and resources while preserving the quality of education will be crucial for future success.

Aspirations: *(Include your data analysis of success, retention, enrollment, completion rates OR other relevant metrics in your response.)*

The Welding program at Antelope Valley College aspires to be recognized as a leader in vocational education, known for producing highly skilled and job-ready graduates who excel in the welding industry. We aim to cultivate an environment that not only prioritizes technical proficiency but also fosters critical thinking, creativity, and a strong work ethic among our students.

Our desired future includes:

- **Expansion of Capacity:** With the addition of a secondary weld shop, we envision an increase in enrollment, allowing us to accommodate larger class sizes. This expansion will facilitate a more diverse learning environment and enable us to maintain high completion rates.
- **Enhanced Job Placement:** We aspire to further strengthen our partnerships with local industries, ensuring that every graduate not only leaves with technical skills but also has direct pathways to employment. We aim to achieve job placement rates that reflect the demand for skilled welders in our region.
- **Excellence in Training:** Our goal is to continuously improve the quality of our hands-on training by integrating the latest technology and teaching methodologies. We aspire to enhance student preparedness for real-world applications, ensuring that they meet and exceed industry standards.
- **Recognition for Certification Success:** We aim to establish our program as a benchmark for national certification success rates in welding. By focusing on rigorous preparation and support, we want our students to consistently excel in certification assessments.

In summary, the Welding program aspires to be synonymous with quality education and career readiness, where students not only gain technical skills but also thrive in a supportive and innovative learning environment.

Part 2B: (Required for CTE) External Data: Advisory Committee Recommendations & Labor Market Data

☐ N/A

Insert Advisory Committee Recommendations here (Please do not insert complete meeting minutes, but just recommendations from the advisory committee.) Spoke on the group project with the electrical classes on a solar panel class which could lead to possible job opportunities after getting the certifications for electrical and the D1.1 for both wire and stick on (unlimited thickness) one-inch test plates, quick discussion on apprenticeships which include the CNC internship in the fall 23 semester and a new structural internship which includes wps for structural connections.

Insert Labor Market Data here https://www.labormarketinfo.edd.ca.gov/commcolleges/

TOP Code(s):

095650 Welding Technology

Geography: Los Angeles County

Includes: Los Angeles County

Annual Job Openings by Occupation

SOC Code	Occupation Title (Linked to "Occupation Profile")	2020 Employment	Annual Job Openings (1)
514121	Welders, Cutters, Solderers, and Brazers	6,510	7,250
514122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	620	640
	Total	7,130	7,890

Part 2C: Review and comment on progress toward past Course Improvement Plans

List your past **Course Improvement Plans** (CIPs) and progress toward meeting those plans.

Past Course Improvement Plans	Progress Made
1. Refine Student Learning Outcomes (SLOs) to better align with industry standards.	Successfully restructured the SLOs, resulting in a curriculum that is more closely aligned with current industry expectations and skill requirements.
2. Expand hands-on training opportunities in welding courses.	Introduced new equipment and technology, which enhanced hands-on training sessions, leading to increased student satisfaction and improved readiness for the workforce.
3. Improve student support services to increase retention rates.	Launched targeted mentorship and academic support programs, contributing to a significant rise in student retention and completion rates.

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

List your past program review goals and progress towards those goals.

Past Goal	Progress Made
1. Enhance student retention and completion rates within the program.	Achieved a notable increase in completion rates, with 150% more certificates and degrees awarded compared to the previous year and a retention rate of 90%.
2. Increase job placement rates for graduates in the local industry.	Established new partnerships with local employers, leading to higher job placement rates for graduates, particularly in aerospace welding positions.
3. Improve the quality and effectiveness of hands-on training.	Implemented state-of-the-art training methods and updated equipment, which resulted in positive student feedback and improved practical skills development.
4. Elevate national certification success rates.	Revised the curriculum to focus on certification preparation, leading to an increase in student pass rates for national welding certifications.

Part 3: Based on Part 2 above, please list program/area goals:

Program /Area Goal #	Goal Supports which:				ESP Goal Primarily Supported:	Goal (Student-focused)	Steps to be taken to achieve the goal?	Measure of Success (How would you know you've achieved your goal?)
	ILO	PLO	SLO	OO				
#1	ILO 4. Career and Specialized Knowledge	4			Goal #6 Success: Boost success rates by prioritizing the student experience.	Increase the percentage of students completing certificates and degrees.	1.Enhance mentorship and academic support services. 2. Conduct regular workshops on study skills and career planning.	Monitor completion rates and gather student feedback on support services.
#2	ILO 4. Career and Specialized Knowledge	3			Goal #6 Success: Boost success rates by prioritizing the student experience.	Ensure that more graduates secure employment in the welding sector.	1. Expand partnerships with local industries. 2. Implement job readiness training and resume workshops.	Track job placement outcomes through graduate surveys and employer feedback.
#3	ILO 4. Career and Specialized Knowledge	1 and 2			Goal #5 Education: Expansion of offerings and effective course scheduling.	Improve student preparedness for real-world welding applications.	1. Upgrade training equipment and materials. 2. Incorporate feedback from students on training methods.	Assess student satisfaction through course evaluations and hands-on assessments.
#4	ILO 4. Career and Specialized Knowledge	5			Goal #6 Success: Boost success rates by	Ensure students are well-prepared for certification assessments.	1. Revise curriculum to include more focused certification prep courses.	Evaluate student performance on certification

					prioritizing the student experience.		2. Provide access to practice materials and mock assessments.	exams and gather feedback on preparation materials.

Part 4: Resource Requests that Support Program Goals (Based on the above analysis, please use the following space to document resource requests)

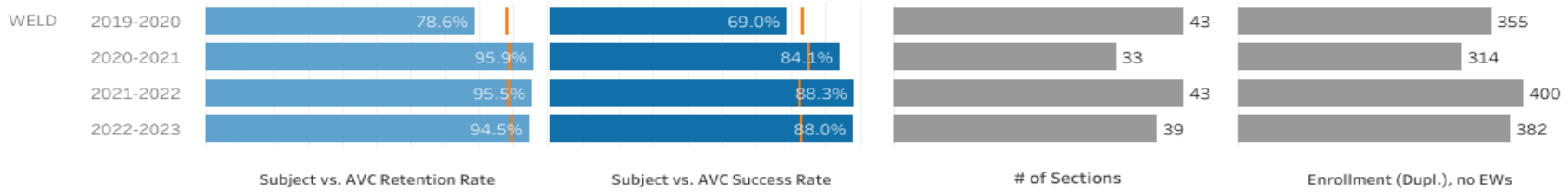
Type of Resource Request	Summary of Request	Which of your Program/area goals (Part 3) does this request support?	New or Repeat Request	Amount of Request, ($)	One-Time or Recurring Cost, ($)	Contact's Name
Physical/Facilities	Request for a secondary weld shop to accommodate increased enrollment. Currently, we can only hold class offerings for as few as 5 students per class, limiting our ability to boost completion rates. Expanding to a secondary shop would allow us to offer more classes and increase student capacity.	Supports Goal #3: Improve student preparedness for real-world welding applications.	New		One-time	
Supplies	Upgrade existing welding equipment to ensure access to the latest technology for hands-on training.	Supports Goal #3: Improve student preparedness for real-world welding applications.	Repeat	4	Recurring	
Faculty	Hire additional adjunct instructors to support increased enrollment and provide specialized training.	Supports Goal #2: Ensure that more graduates secure employment in the welding sector.	Repeat	2	One-time	
Classified Staff	Request for a secondary welding instructional assistant to provide additional support to students and instructors in the lab.	#3: Improve student preparedness for real-world welding applications.	Repeat	7	One-time	
Professional development	Implement advanced training programs for existing faculty to enhance teaching methodologies and technical skills.	Supports Goal #4: Ensure students are well-prepared for certification assessments.	Repeat	2	Recurring	

Part 5: Insert your Program

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

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

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



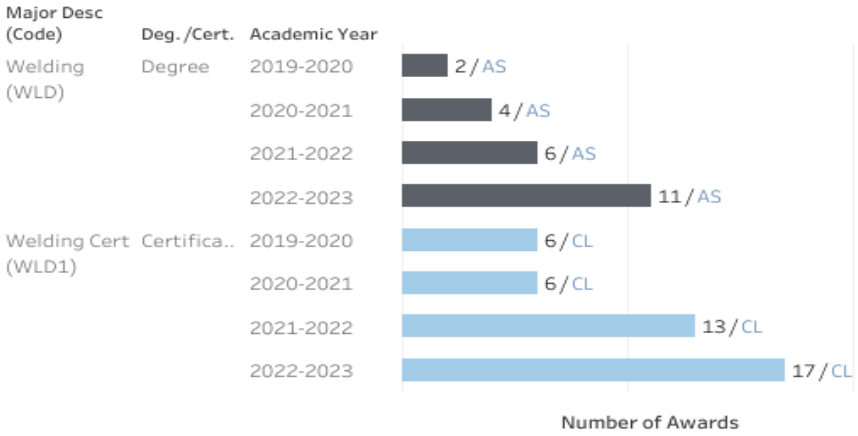
Enrollment and Number of Sections by *Modality* in WELD

	Instr. Method	2019-2020	2020-2021	2021-2022	2022-2023
Number of Sections	Other Indep Study	1	2	4	2
	Traditional	42	31	39	37
Enrollment	Other Indep Study	1	5	5	2
	Traditional	395	310	395	380

Enrollment and Number of Sections by *Location* in WELD

	Location	2019-2020	2020-2021	2021-2022	2022-2023
Number of Sections	Lancaster	43	33	43	39
Enrollment	Lancaster	396	315	400	382

Number of Program Awards in Welding (WLD) & Welding Cert (WLD1)



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

	Fall 2019	Fall 2020	Fall 2021	Fall 2022
PT (Adjunct) FTEF	1.3	0.4	0.9	
FT (Regular) FTEF	1.1	0.6	1.1	1.5
FT (Overload) FTEF	0.2	0.2	0.2	0.9
TOTAL FTEF	2.6	1.2	2.2	2.4
PT/FT FTEF Ratio	1.2	0.7	0.8	
FTES	23.8	18.6	29.5	29.2
FTES/FTEF Ratio	9.2	15.5	13.5	12.3
WSCH/FTEF Ratio	274.5	465.8	405.8	368.1
WSCH	713.7	558.9	884.7	

Click here to see AVC's Program awards dashboard

Last Update: 09/30/2022 .Data Sources: AVC's Banner, ARGOS reports

Review Data here and any other supporting data. (See Part 2A above).

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