

11/15/2024 MW

Teri Gardner 11-15-24

## **APPLICATION FOR WSATC RECOGNITION OF AN APPRENTICESHIP PREPARATION PROGRAM**

*Recognized Apprenticeship Preparation Programs are education and training programs which maintain formal articulation agreement(s) with one or more registered apprenticeship program sponsors. The purpose of the recognized preparation programs is to prepare participants for successful entry into registered apprenticeship programs. Preparatory programs are designed to increase the participation of underrepresented populations in registered apprenticeship. (WSATC Policy 2012-03 Sec. I B).*

*An apprenticeship preparation program may apply for recognition or continuing recognition from the WSATC. The WSATC may grant initial recognition for a period of up to 18 months, and continuing recognition for a period of up to three years. To apply for initial recognition, programs must have participants enrolled in training at the time of application, and provide individualized demographic data for the first/current cohort of participants. (WSATC Policy 2012-03 Sec. III).*

### **SECTION 1: CONTACT INFORMATION AND PROGRAM SUMMARY**

**Name of Apprenticeship Preparation Program:**

AJAC - Manufacturing Academy

**Name of parent organization/organization that will administer the program:**

AJAC Advanced Manufacturing Apprenticeships (AJAC)

**Contact Information:**

**Individual Authorized to Represent the Program**

*Name:* Demetria Lynn Strickland

*Organization:* AJAC Advanced Manufacturing Apprenticeships (AJAC)

*Title:* Executive Director, Training Coordinator

*Phone:* 206.456.8861

*Email:* lstrickland@ajactraining.org

*Mailing Address:* **P.O. Box 80727, Seattle, WA 98108**

*Physical Address:* **6811 S. 204th ST, Suite 380, Kent, WA 98032**

## **Point of Contact for Outreach and Enrollment**

*Name: John Manning*

*Organization: AJAC Advanced Manufacturing Apprenticeships (AJAC)*

*Title: Pre-Apprenticeship Program Manager*

*Phone: 425.625.6837*

*Email: [jmanning@ajactraining.org](mailto:jmanning@ajactraining.org)*

*Mailing Address: P.O. Box 80727, Seattle, WA 98108*

*Physical Address: **6811 S. 204th ST, Suite 380, Kent, WA 98032***

## **Primary User of Apprentice Registration and Tracking System (ARTS) Portal**

*Name: Leo Vogel*

*Organization: AJAC Advanced Manufacturing Apprenticeships (AJAC)*

*Title: Director of Student Finance & Compliance*

*Phone: 702.445.9362*

*Email: [lvogel@ajactraining.org](mailto:lvogel@ajactraining.org)*

*Mailing Address: **P.O. Box 80727, Seattle, WA 98108***

*Physical Address: **6811 S. 204th ST, Suite 380, Kent, WA 98032***

## **Summary of Preparatory Program**

**Please briefly summarize the following in three pages or less within Appendix A.**

1. *Describe the organization that will be operating the preparatory training. If this is an existing organization, briefly describe its history and mission, and why apprenticeship preparation is a good fit.*
2. *Describe how the program will be funded. If the program's start-up is grant funded, describe your sustainability plan once the grant ends.*
3. *Describe the primary needs you have identified in your service area the program will address.*
4. *Describe the target populations and geographical area.*
5. *Describe the program. Please include the following:*
  - a. *The structure of preparatory program including the anticipated number of participants/cohorts per year, approximate duration of the program, and cost of the program to participants;*

- b. How the program will be staffed (i.e., instructors, administration, etc);*
  - c. Participant support/resources during program; and*
  - d. Apprenticeship navigation and articulation plan.*
6. *Describe the program outcomes. Please include the following if applicable.*
- a. Successful completion (required)*
  - b. Industry recognized certificate(s)/certification(s)*
  - c. Educational credit*
  - d. Target articulation rate (required)*
7. *Please provide additional details, if any, you would like to share about your program (i.e. positives outcomes other than registered apprenticeship articulation, etc.)*

**SECTION 2: PROGRAM PARTICIPANTS AND OUTCOMES - (WSATC Policy 2012-03 Sec. II B)**

*A minimum apprenticeship articulation goal, which shall be at least 15% of graduates. Articulation shall be measured at six months following the date program participants graduate, with the following exceptions:*

- a. Programs serving actively enrolled K-12 participants may request articulation be measured at 12 months following the date of apprenticeship preparation program graduation; OR*
- b. Programs serving currently incarcerated individuals may request articulation be measured at 18 months following the date of apprenticeship preparation program graduation.*

*The anticipated number of participants who will enroll in the preparatory program annually.*

*The specific requirements to complete the program (i.e., attendance, grades, test scores, skill demonstrations, certificate attainment, etc.).*

*The specific apprenticeship, industries and/or occupations program graduates will be prepared to enter.*

**Please respond in full to the questions below regarding your program’s participants and outcomes.**

- 1. Occupations Trained: Please describe the specific apprenticeship, industries and/or occupations program graduates will be prepared to enter:*

Completers have access to the six of the eight occupations listed on the AJAC Production Apprenticeship Committee Standards and four of the five occupations listed on the AJAC Maintenance Apprenticeship Committee Standards.

- 2. Target Articulation Rate: Approximately what percentage of program graduates do you expect to enter into a registered apprenticeship following completion of your program?*

15% is the goal

1. Target Participant Population and Successful Articulation Timeframe: Please select the option which best characterizes your program participant successful articulation timeframe. Please describe.

**6 Months**

**12 Months** (program serving actively enrolled K-12 participants)

**18 Months** (program serving currently incarcerated individuals)

The exemptions do not apply to this program so we chose the 6-month option.

3. *How many participants do you anticipate enrolling in each cohort and how many cohorts per year?*

We anticipate enrolling approximately 152 participants in approximately 16 cohorts in King, Pierce, Snohomish, Thurston, and Yakima counties.

4. *Please describe the requirements to complete the program (i.e., attendance, grades, test scores, skill demonstrations, certificate attainment, etc.).*

Requirements for completion include a minimum GPA of 2.0. This includes the following: (75%) (based on assessment/test scores), attendance (10%), participation (5%), and skills demonstrations through comprehensive projects (10%).

**SECTION 3: ARTICULATIONS AND PARTNERSHIPS - (WSATC Policy 2012-03 Sec. II E, Sec. I E)**

*Apprenticeship preparation programs training participants for a specific occupation must provide at least one articulation agreement at the time of application. Preparatory programs training individuals in multiple occupations must provide a minimum of two articulation agreements at the time of application. Articulation agreements must contain the following components:*

*The names of the organizations entering into the agreement (Apprenticeship Preparation Program and Registered Apprenticeship Program).*

*The specific apprenticeship program and occupation(s) that the apprenticeship prep program graduates will be prepared to enter.*

*One or more of the following considerations for graduates of the prep program:*

- a. A preferred entry clause;*
- b. An advanced standing or credit clause;*
- c. Additional point(s) awarded in the application/interview process; or*
- d. Guaranteed interview with registered apprenticeship program.*

*Be executed or renewed no more than three months prior to the date of application.*

**Please select the option which best characterizes your program.**

- Registered Apprenticeship Program specific apprenticeship preparation** (*goal is preparation of apprentices for one specific registered apprenticeship*)
- General apprenticeship preparation program** (*goal is preparation and support to succeed in a variety of apprenticeships*)

**Please complete the chart below with the requested information for each registered apprenticeship with which your program has a formal articulation agreement. A copy of each articulation agreement must be attached to this application. A Memorandum of Agreement/Understanding, a formal contract, or a signed letter of commitment are acceptable forms of articulation agreements.**

Apprenticeship Program Name	Articulating Occupation(s)	Articulation Type <i>(select all that apply)</i>			
		Preferred Entry	Advanced Standing or Credit	Additional Points on Application/Interview	Guaranteed Interview
1828 – AJAC Production Apprenticeship Committee	-Industrial Machine Operator -Machinists -Machinists (Aircraft Oriented) - Manufacturing Precision Metal Fabricator -Plastic Process Technician -Tool & Die Maker		X		
2255 – AJAC Maintenance Apprenticeship Committee	-Aircraft Mechanic Airframe -Airframe Mechanic Powerplant -Industrial Maintenance Automation Technician -Industrial Manufacturing Technician		X		

Please list any other organizations, if any, which have endorsed your program or otherwise partnered with you to develop or administer this program.

Program or Organization Name	Role(s) <i>(eg: training provider, Advisory Board member, industry consultant, supportive services provider, etc.)</i>
Asian Counseling and Referral Services	Referral partner, supportive services provider
Neighborhood House	Referral partner, supportive services provider
Boys & Girls Club of King County	Referral partner, supportive services provider, training location
People for People	Referral partner, supportive services provider
Equus	Referral partner, supportive services provider
Workforce Central	Program development partner/advisor, industry engagement support
South Central Workforce Development Council	Program development partner/advisor, industry engagement support
Lacey MakerSpace	Program development partner/advisor, industry engagement support, training location
Thurston County Chamber of Commerce	Program development partner/advisor, industry engagement support
Department of Children, Youth, and Families	Program development partner/advisor
Department of Corrections	Program development partner/advisor
South Seattle College Georgetown campus	Program development partner/advisor, supportive services provider, training location
Bates Technical College	Program development partner/advisor, supportive services provider, training location
Green River College	Program development partner/advisor, supportive services provider, training location
WATR Center	Program development partner/advisor, training location





## **SECTION 4: CURRICULUM - (WSATC Policy 2012-03 Sec. II C)**

*Curriculum should be developed in consultation with apprenticeship partners and subject matter experts to ensure it aligns with current industry standards and prepares graduates to meet or exceed the minimum qualifications for entry into an apprenticeship. To ensure recognized Apprenticeship Preparation Programs are adequately preparing participants to enter Registered Apprenticeship and be successful apprentices, preparatory training curriculum must meet the following requirements:*

- a. Be a minimum of 80 hours in duration;*
- b. Employability skill development shall not exceed 50% of curriculum hours. Employability skill development shall be defined as general employment skills (communication, professionalism, work ethic, etc.);*
- c. Industry/trade specific skills and knowledge shall constitute at least 50% of curriculum hours. Industry/trade specific skills and knowledge shall be defined as hands-on training to develop manual, mechanical, or technical skills relevant to the occupation(s) the preparatory participant(s) are training to successfully enter, and which does not displace paid employees; and*
- d. Industry/occupation specific safety training and education.*

**In one to two paragraphs, please provide a brief summary of the program’s curriculum describing the total number of hours, topics covered, method of delivery, etc.**

The MA program includes a total of 240 hours, covering Manufacturing Safety & Certifications (50 hours); Manufacturing Basics 1 & 2 (170 hours); and Career Navigation (20 hours). The curriculum is designed to provide foundation skills to prepare individuals for entry-level advanced manufacturing employment and a basic understanding of apprenticeship pathways and opportunities through AJAC. Methods of delivery include didactic classroom presentations from AJAC instructors, group projects, hands-on projects, shop time (shop time availability varies by location), and homework.

Safety & Certifications include OSHA-10, First Aid/CPR and AED, manufacturing shop safety, and forklift safety/lifting & rigging. Manufacturing Basics 1 & 2 include industry/trade specific skills and knowledge such as intro to hand, pneumatic, and power tools; precision measurement & quality assurance; basic electrical & soldering; applied math for manufacturing; manufacturing blueprints and specifications; LEAN and Six Sigma; forklift certification and logistics; manual mill and lathe concepts; basic CNC set-up and operations; materials, process, and reference; sheet metal concepts and projects; and preventative maintenance concepts. Career navigation includes an overview of AJAC apprenticeship programs, resume development, job tours at AJAC training agent employer partners, and problem solving/critical thinking/teamwork and communications.

**Please respond in full to the questions below.**

1. *Please describe your program's working relationship with one or more registered apprenticeship programs in the development of elements such as curriculum, class activities, evaluation methods, and teaching techniques.*

MA was developed with business partners to address the entry-level needs of industry. Some of the businesses represented are or have been AJAC Committee members. MA curriculum has been revised over the years to ensure it continues to meet employer needs for entry-level industry occupations. The development and implementation of the program has been endorsed by the AJAC apprenticeship committee(s) since 2011 as being a necessary step to employment and then enrollment into registered apprenticeship programs.

2. *Please identify the program's instructor(s) and provide a brief summary of their qualifications.*

AJAC employs six full-time instructors to provide MA training. These instructors have industry and/or educational experience, some ranging up to 20 years industry experience with some instructors having industry certifications such as OSHA-10, CPR and forklift. Additionally, one of the program managers is an industry professional with almost 30 years of industry experience who assists with classroom management, instruction and overall program management.

3. *What, if any, post-secondary credit do program participants receive?*

N/A

**Please complete Appendix B – Curriculum Outline.**

*Please see attached Appendix B*

**SECTION 5: PARTICIPANT RECRUITMENT AND RETENTION - (WSATC Policy 2012-03 Sec. II D)**

*Preparatory program recruitment and retention plans must contain the following elements:*

*The target demographics of the population their enrollees will be drawn from; and*

*The specific tools and activities used to recruit and retain participants, with an emphasis on recruitment of underrepresented populations.*

**Please respond to the following questions regarding your programs recruiting and retention plans.**

1. *Please describe the general demographics of the intended program participants (i.e., age, gender, race/ethnicity, geographic area, etc.). Is the program limited to a specific population (i.e., students at a particular high school, veterans, WIOA-eligible, etc.)? If so, explain:*

MA serves a range of underrepresented populations, including low-income un/underemployed individuals, women, BIPOC communities, ELL students, transitioning military, and other underrepresented populations. This allows for a more diverse pipeline into industry.

2. *Please describe the tools and activities which will be utilized to recruit students, and describe how underrepresented populations will be encouraged to enroll in the program.*

AJAC will continue to utilize tools that have already been proven to yield successful results in outreach and recruitment. Some of these activities include: 1. Outreach Events: Hosting and participating in career fairs, industry tours, and community job events; 2. Partnerships: Collaborating with community-based organizations, schools, workforce development boards, and correctional facilities to target specific populations; 3. Social Media Campaigns: Using platforms like LinkedIn, Facebook, and Instagram to reach underrepresented groups; 4. Employer Referrals: Working with industry employers and registered apprenticeship programs to refer candidates, particularly from diverse backgrounds; 5. Direct Outreach: Engaging with local veterans' organizations, re-entry centers, community centers, and youth organizations to provide access to the program.

3. *Please describe the tools, processes, and resources your program will utilize to retain participants through graduation.*

To retain participants through graduation, the Manufacturing Academy employs the following tools and processes: 1. Wraparound Work Support Items (work boots, PPE, etc.); 2. Career Navigation Mentorship: Offering one-on-one mentorship and career coaching to guide participants through the program and keep them engaged; 3. Progress Monitoring: Using regular check-ins, progress assessments, and skills evaluations to ensure participants are on track to complete their training; 4. Peer Support Networks: Creating a community-based support system where participants can collaborate and support each other throughout the program; and 5. Industry Certificates: Throughout the program participants complete industry certifications in forklift, OSHA, CPR/First Aid, Money Matters and LEAN which increases the value of the program and encouraging program completion.

4. *Please describe the services that will be provided to graduates and current participants to assist in their successful application and articulation into registered apprenticeship programs.*

To assist in the successful articulation into registered apprenticeship programs, the Manufacturing Academy provides the following: 1. Employer Connections: Partnering with industry employers and apprenticeship sponsors to connect graduates with industry exposure tours and job openings; 2. Application Support: Assisting participants with resume writing, interview preparation, and application submission for registered apprenticeships; 3. Post-Graduation Mentorship: Offering ongoing mentorship and career navigation supports even after participants have graduated to ensure a smooth transition into their apprenticeship roles; and 4. Networking Opportunities: Facilitating networking events within the mfg. industry in efforts to support current apprentices' retention, and graduates to help expand their professional opportunities.

It is important to note as a reminder, AJAC apprenticeship programs are incumbent worker programs; therefore, in addition to completing the MA training, individuals must obtain employment with a partnering Training Agent and then be enrolled into an AJAC apprenticeship program.

## **SECTION 6: ADMINISTRATIVE REQUIREMENTS - (WSATC Policy 2012-03 Sec. II A)**

*Recognized Apprenticeship preparation programs shall commit to reporting the following information to L&I via the Apprenticeship Registration Tracking System (ARTS) system on a semi-annual basis, unless granted an exception\* by the WSATC:*

### *New participant demographics*

- a. First and Last Names*
- b. Birth Date*
- c. Gender*
- d. Race/ Ethnicity*
- e. Veteran Status*

*f. Social Security Number\**

*Outcome measures (Individual-level Information)*

- a. Participant graduation(s)/ completions*
- b. Participant withdrawals*
- c. Graduates who have entered into Registered Apprenticeship*

**Please describe the tools and processes your program will utilize to successfully meet the administrative requirements listed above.**

We are utilizing ARTS for our reporting requirements

**Please complete Appendix C – Administrative Requirements Spreadsheet.**

## SECTION 7: APPENDICES

Please complete and submit appendices with the application packet as separate files.  
Appendices include the following:

*Appendix A – Program Summary*

*Appendix B – Curriculum Outline*

*Appendix C – Administrative Requirements Spreadsheet*

*Appendix D – Articulation Agreement(s)*

*\*Submitted by program as individual documents*



## **SUBMISSION INSTRUCTIONS**

***Applications are due no later than 45 days prior to the scheduled quarterly meeting of the Washington State Apprenticeship and Training Council. It is strongly recommended that you submit your application 2 weeks prior to the deadline for pre-review, to ensure that your application is complete. Contact Rio Frame for questions or assistance.***

***Please submit your completed application via email to:***

*Rio Frame, Management Analyst  
Dept. of Labor & Industries, Apprenticeship Section  
Rio.Frame@Lni.wa.gov  
509-426-0985*

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## **APPENDIX A – PROGRAM SUMMARY**

*Teri Gardner 11-15-24*

Please briefly summarize the preparatory program according to the requirements listed in Section 1 “Summary of Preparatory Program” in three pages or less.

### **Organizational History, Mission and Apprenticeship Preparation Fit**

AJAC is a non-profit training organization established in 2009 providing state-wide Pre-Apprenticeship (PA) and Registered Apprenticeship (RA) programs for Washington State residents 16 years and older. AJAC developed the Manufacturing Academy (MA) pre-apprenticeship in 2011 and has operated it continuously ever since. As an industry-driven apprenticeship organization, AJAC’s mission is founded on the belief that mastery occurs on the job and that through pre-apprenticeship and registered apprenticeship, all people have the opportunity to earn competitive wages, find meaningful and fulfilling work, and pursue lifelong learning.

AJAC is structured as an incumbent worker RA program, meaning that an individual must be employed with a partnering Training Agent (TA) employer before they can enroll into any of AJAC’s 16+ RA programs. The goals are 1) employment with an AJAC TA and 2) continuation of the individual’s education and training through AJAC’s incumbent worker RA program model.

MA is a good fit for employers looking to diversify their workforce as well as their apprenticeship participation, as this diverse pipeline of pre-apprenticeship completers provides them with individuals who have foundational industry knowledge and skills, as well as knowledge of career advancement opportunities available through AJAC’s multiple RA programs.

### **Funding**

Since 2011, AJAC has obtained funding for MA through state, federal, and philanthropic sources as is common with a non-profit organization. This funding includes no cost to participants and focuses on partnerships with state agencies, community colleges, and local workforce development boards (LWDBs) who have sustained workforce development funding through either state and/or federal resources. While the funding partners may change, AJAC has become adept in obtaining funding for the level of MA programs needed for industry for the past 13 years and is fully confident in our ability to continue this practice.

### **Primary needs, Target Populations and Geographic Area**

Manufacturing is the top employing sector in over half of Washington State’s counties, according to the Association of Washington Business (AWB). Nearly half of these employers, however, report difficulties in finding applicants for open positions. MA provides a diverse pipeline of individuals with fundamental industry skills and certifications for employers looking to hire with an opportunity to train their workforce through the RA model of training. Through the program,

individuals acquire fundamental skills, industry certifications, and access to employment with hiring employers as well as the opportunity for continued education and training through AJAC's RA programs. Career navigation support is also available for MA completers, including resume assistance, job tours and job leads with AJAC TAs, interview assistance, job coaching, and RA enrollment assistance.

MA is designed to serve adult job seekers (primarily underrepresented populations including low-income, un/underemployed individuals, women, BIPOC communities, ELL students, and transitioning military).

MA is a statewide program serving King County (South Seattle College Georgetown campus, Green River College Kent Station campus); Pierce County (Bates Technical College); Snohomish County (WATR Center); Yakima County (AJAC Training Center); and Thurston County (Lacey MakerSpace).

### **Program Description**

MA is a 10-week program running approximately 6 hours per day and is designed to provide both job and technical skills. The anticipated number of participants ranges from 100 to 200 participants per year depending on demand.

AJAC partners with various state agencies, community colleges, local workforce development boards, and community-based organizations (CBOs) to provide supportive services to individuals enrolled in MA. This is a full-time 10-week program and while it is at no cost to the participant, wrap-around supportive services are often needed to ensure completion.

MA directly articulates with two of AJAC's three Committees (Production & Maintenance); however, there are plans within the next year to have a direct articulation into the Logistics & Operations Committee. As part of our renewal process, the Production and Maintenance Committees recently approved that MA completers will be granted 240 OJT hours when they are enrolled in an AJAC RA.

### **Program Outcomes**

Successful completion of MA is determined by a minimum Grade Point Average of 2.0, which assess technical skills, attendance, and completion of multiple hands-on projects. Skills taught in MA include, but are not limited to shop safety; shop math; blueprint reading; machining and maintenance basics; and job readiness skills. Certifications earned and awarded upon successful completion include OSHA 10, First Aid/CPR, and forklift.

Students tour local manufacturing firms and develop resumes and cover letters for open positions at AJAC partner employers. Young adult (16-24) MA completers can also participate in a paid internship (up to 120 hours).

Certain MA sites, such as South Seattle College Georgetown campus, Bates Technical College, and Green River College also provide educational credits as part of the MA program to provide continued career pathway options through the colleges for MA completers. Our target articulation rate is 15% within 6 months of completion for adult MA participants.

### **Additional Program Information**

*6. Please provide additional details, if any, you would like to share about your program (i.e. positives outcomes other than registered apprenticeship articulation, etc.)*

It is important to note as a reminder, AJAC apprenticeship programs are incumbent worker programs; therefore, in addition to completing the MA training, individuals must obtain employed with a partnering Training Agent and then be enrolled into an AJAC apprenticeship program.

As noted above, the MA program provides connections to employment opportunities with AJAC training agents and other advanced manufacturing employers. Career navigation services were added to the MA program in 2022, and gradually added to programs at all MA sites across Washington State.

Since 2022, 71.9% of completers received career navigation services; of those, 70.3% received a job offer from an AJAC TA or advanced manufacturing company.

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## **APPENDIX B – CURRICULUM OUTLINE**

Curriculum should be developed in consultation with apprenticeship partners and subject matter experts to ensure it aligns with current industry standards and prepares graduates to meet or exceed the minimum qualifications for entry into an apprenticeship. To ensure recognized Apprenticeship Preparation Programs are adequately preparing participants to enter Registered Apprenticeship and be successful apprentices, preparatory training curriculum must meet the following requirements:

- a. Be a minimum of 80 hours in duration;
- b. Employability skill development shall not exceed 50% of curriculum hours. Employability skill development shall be defined as general employment skills (communication, professionalism, work ethic, etc.);
- c. Industry/trade specific skills and knowledge shall constitute at least 50% of curriculum hours. Industry/trade specific skills and knowledge shall be defined as hands-on training to develop manual, mechanical, or technical skills relevant to the occupation(s) the preparatory participant(s) are training to successfully enter, and which does not displace paid employees; and
- d. Industry/occupation specific safety training and education. (WSATC Policy 2012-03 Sec. II C)

**Please use the format below for the program’s curriculum outline. Identify all curriculum elements and provide primary learning objectives that apply to each course.**

**Please copy and paste the format below to add additional course sections and/or primary learning objectives as needed.**

### **1. Manufacturing Safety & Certifications – 50 Hours**

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development
- Industry/trade specific skills and knowledge

- a. **OSHA-10 Certification:** Introduction to OSHA and Workers' Rights, General Safety and Health Provisions, Hazard Communication, Machine Guarding and Lockout/Tagout Procedures, Electrical Safety, Ergonomics in Manufacturing, Fall Protection, Fire and Explosion Hazards, Confined Space Entry Awareness, Material Handling and Storage.
- b. **CPR/First Aid and AED Training & Certification:** Cardiopulmonary Resuscitation (CPR), First Aid Basics, Automated External Defibrillator (AED) Use, Choking Emergencies, Handling Medical Emergencies, Bleeding and Wound Care, Injury Prevention and Scene Safety.
- c. **Manufacturing Shop Safety:** Understand the importance of safety in manufacturing environments, the role of safety regulations, and the personal responsibility of each worker

in maintaining a safe workplace. Identify the types of PPE required in manufacturing, such as safety glasses, hearing protection, gloves, and steel-toed boots, and learn proper selection, use, and maintenance. Understand fire hazards in the shop, proper storage of flammable materials, fire extinguisher use, and emergency evacuation procedures. Learn to safely handle hazardous chemicals, read Safety Data Sheets (SDS), and understand labeling requirements to prevent exposure to toxic substances. Understand the importance of maintaining a clean and organized workspace, including how to prevent trip hazards, spills, and clutter in high-traffic areas. Learn safe handling and operation of hand and power tools, including inspection before use, proper storage, and how to avoid common injuries related to tool misuse. Understand the importance of reporting accidents, near misses, and unsafe conditions promptly, as well as knowing basic first aid for common workplace injuries.

- d. **Forklift Safety / Lifting and Rigging:** Forklift Safety Basics, Pre-Operation Inspections, Safe Driving Practices, Working in Tight Spaces and Around Pedestrians, Introduction to Lifting and Rigging Safety, Equipment Inspection and Maintenance, Emergency Procedures and Load Failure.

## 2. Manufacturing Basics 1 & 2 – 170 Hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development
- Industry/trade specific skills and knowledge

### a. Introduction on Hand, Pneumatic, and Power Tools

#### b. Precision Measurement & Quality Assurance

- Understand Measurement Fundamentals
- Identify Measurement Tools and Instruments
- Perform Accurate Measurements
- Apply Measurement Techniques
- Interpret and Analyze Measurement Data
- Calibrate and Maintain Measurement Equipment
- Understand Geometric Dimensioning and Tolerancing (GD&T)
- Troubleshoot Measurement Issue

#### c. Basic Electrical & Soldering

- Understand Basic Electrical & Soldering Concepts
- Identify Electrical Components
- Analyze Simple Electrical Circuits
- Understand AC vs. DC Circuits
- Apply Electrical Safety Procedures
- Use Basic Electrical Measurement Tools
- Apply Soldering Techniques to Practice Boards

**d. Applied Math for Manufacturing**

- Understand Basic Arithmetic Operations
- Apply Measurement Conversions
- Perform Calculations Involving Ratios and Proportions
- Utilize Algebraic Expressions and Equations
- Understand Geometric Principles
- Interpret and Apply Tolerances
- Use Trigonometry for Manufacturing Application
- Solve Problems Involving Speed, Feed, and Time
- Understand Statistical Process Control (SPC) Concepts
- Interpret Technical Data from Blueprints and Specifications

**e. Manufacturing Blueprints and Specifications**

- Understand Basic Blueprint Components
- Interpret Different Types of Views and Projections
- Comprehend Tolerances and Dimensions
- Analyze and Interpret Technical Specifications
- Identify Construction Materials and Methods
- Apply Blueprint Knowledge to Troubleshooting and Problem Solving
- Collaborate Using Blueprint Information & Project Work

**f. Making vs manufacturing: Understanding LEAN & Six Sigma**

- Define Making and Manufacturing
- Identify Key Characteristics of Making vs Manufacturing
- Explore Examples
- Understand Tools and Techniques
- Evaluate Sustainability Considerations & Green Manufacturing Concepts
- Discuss Innovations & Advancing Technology
- Understand the Principles of LEAN Manufacturing
- Identify and Eliminate Waste
- Improve Workflow and Efficiency
- Understand Value Stream Mapping
- Implement Continuous Improvement Projects
- Enhance Product Quality

**g. Forklift Certification and Logistics**

- Understand Forklift Safety and Regulations
- Operate a Forklift Safely
- Conduct Forklift Inspections
- Apply Load Handling Techniques
- Understand Warehouse Layout and Flow
- Apply Inventory Management Techniques
- Coordinate Shipping and Receiving Processes
- Optimize Warehouse Efficiency

#### **h. Manual Mill and Lathe Concepts**

- Understand Milling Machine Components
- Demonstrate Safety Procedures and Set-up
- Understand Feeds and Speeds
- Perform Basic Milling & Lathe Operations

#### **i. Basic CNC Set-Up and Operation**

- Understand G and M Codes
- Interpret G and M Code Programs
- Identify Common G and M Codes
- Create Simple G Code Programs
- Understand CNC Machine Components
- Set Up a CNC Machine for Operation
- Perform Tool Measurement and Compensation
- Execute a Dry Run
- Apply Safety Procedures

#### **j. Materials, Process, and Reference**

- Understand Material Properties
- Explore Material Processing Techniques
- Analyze Material Selection Criteria
- Interpret Material Specifications and Standards
- Apply Knowledge to Real-World Scenarios & Projects

#### **k. Sheet Metal Concepts & Projects**

- Understand Sheet Metal Properties
- Master Sheet Metal Fabrication Techniques
- Read and Interpret Technical Drawings
- Use Sheet Metal Tools and Equipment Safely
- Perform Accurate Measurements and Layouts
- Understand Riveting Fundamentals
- Select Appropriate Rivets and Tools
- Demonstrate Riveting Techniques
- Inspect Riveted Joints for Quality

#### **l. Preventive Maintenance Concepts**

- Identify Maintenance Needs
- Perform Regular Inspections
- Understand and Follow Maintenance Schedules
- Lubricate and Clean Equipment
- Recognize Safety Procedures
- Document Maintenance Activities



### 3. Apprenticeship Navigation & Company Tours – 20 Hours

Curriculum Elements:

- Industry/occupation specific safety training and education
- Employability skill development
- Industry/trade specific skills and knowledge

#### a. Overview of Apprenticeship Programs & Resume


- Understand the Concept of Apprenticeship
- Identify AJAC Apprenticeship Occupations
- Explore the Benefits of Apprenticeships
- Recognize Key Components of Apprenticeship Programs
- Understand AJAC Training Agent Hiring Process
- Create a Personal Development Plan
- Create an Industry Recognized Resume Tailored to Manufacturing
- Explore Proper Interview Techniques
- Connect with our Career Navigation Team

#### b. Training Agent/Manufacturing Tours

- Observe Manufacturing Processes Identify Equipment and Technology Understand Workflow
- Understand Workflow
- Explore Career Opportunities
- Explore different types of manufacturing shops

#### c. Problem Solving/Critical Thinking/Teamwork & Communications

These elements are embedded within the technical skills elements of the training. These elements are also reinforced for those completers who choose to utilize the career navigation services provided by AJAC.

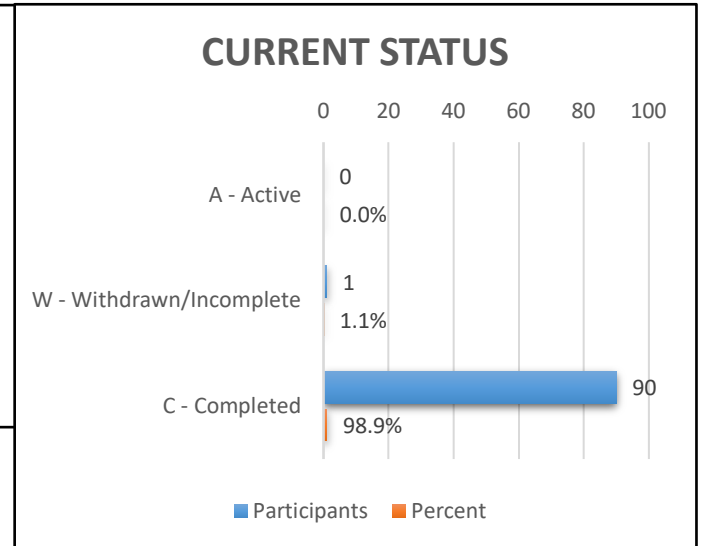
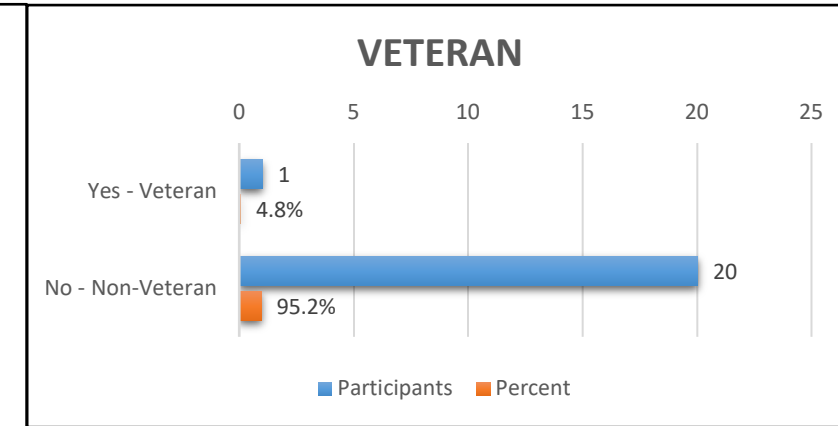
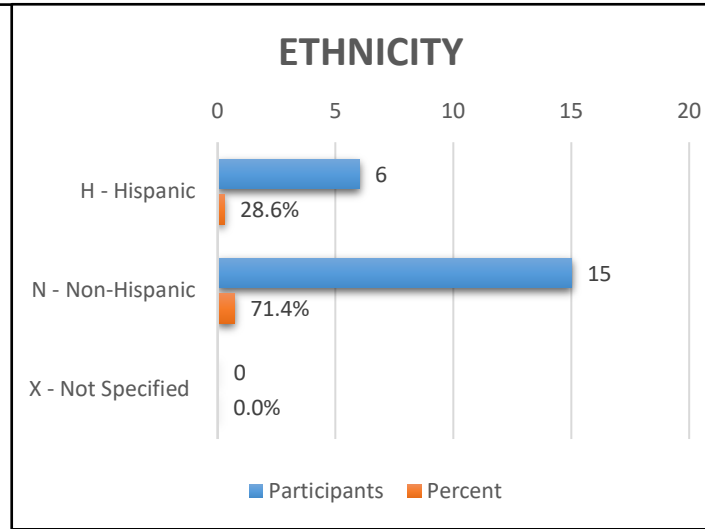
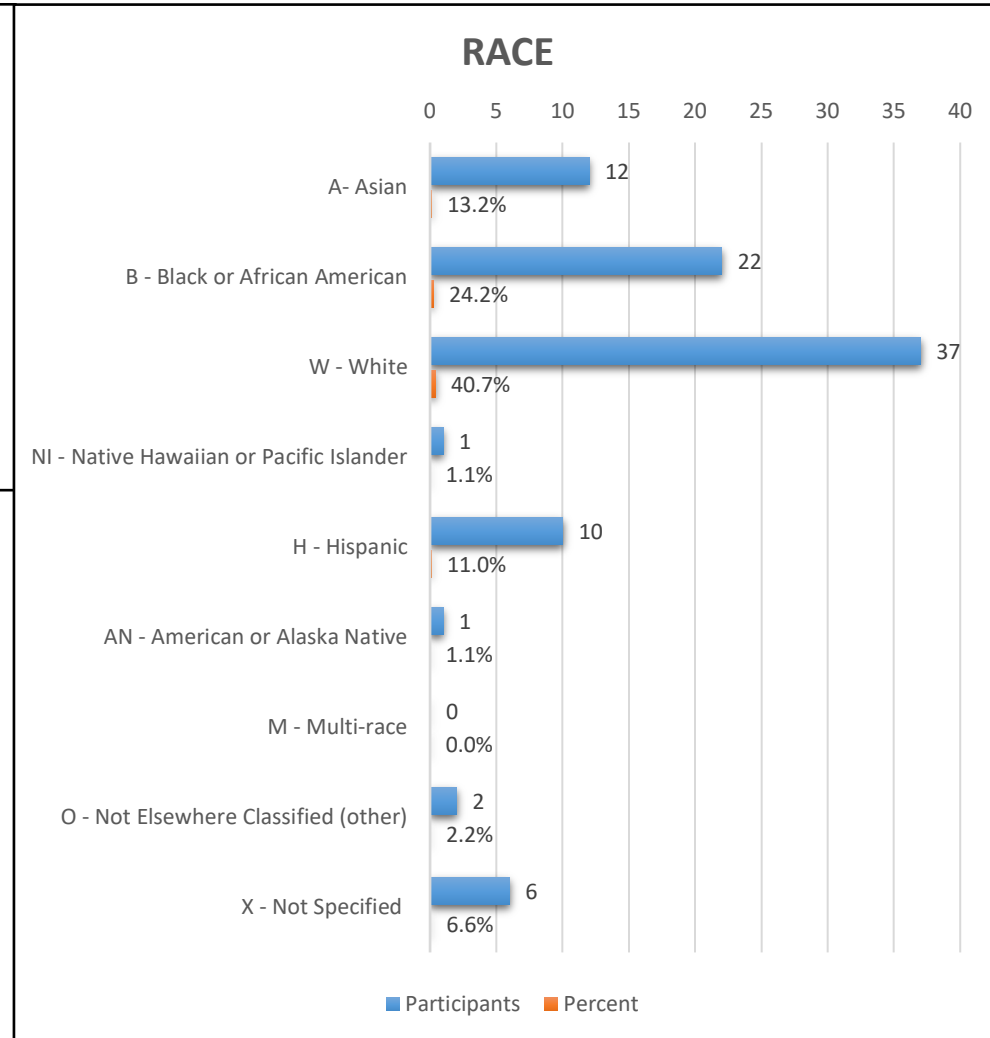
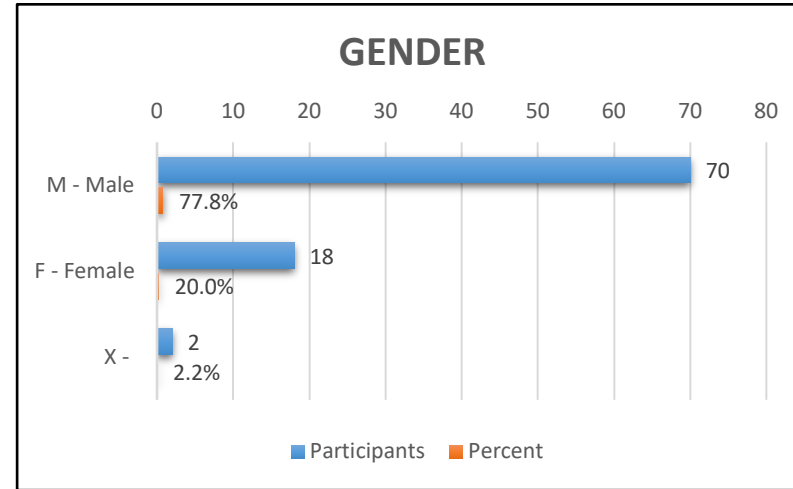
Preparatory Program Name:	AJAC Manunfacutring Academy 2267	Total Number of Participants:	150	
Reporting Period, Earliest Date:	1/1/2022	Total Participant Graduates:	90	
Reporting Period, Latest Date:	11/15/2024	Total Withdrawals/Incomplete:	1	
		Total Grad's Articulated into Reg' Apprenticeship:	10	

\*Please refer to the instructions tab for information on how to properly complete this document.

Participant Information - Total of Cohorts										Registered Apprenticeship Articulation Information			
Last Name	First Name	Birth Date	Gender	Race	Ethnicity	Veteran	Cohort Start Date	Current Status	Graduation Date	Registered Apprenticeship Name	Occupation	Date of Registration	Apprentice ID Number
150	150	21	149	150	21	21	150	150	150	10	10	10	10

Articulation Rate  
6.67%

Hide Chart Hide Chart Hide Chart Hide Chart Hide Chart





11/15/2024 MW

Teri Gardner 11-15-24

October 23, 2024

Washington State Apprenticeship Training Council  
7273 Linderson Way SW  
Tumwater, WA 98501-5414

RE: Letter of Endorsement for AJAC Manufacturing Academy™ Apprenticeship Preparation Program

The AJAC Production Apprenticeship Committee continues to provide a Professional and Technical Endorsement of the Manufacturing Academy™ as an apprenticeship preparation program.

Manufacturing Academy™ is administered by AJAC Advanced Manufacturing Apprenticeships (AJAC) and this endorsement means the Manufacturing Academy™:

- Is in good standing with the AJAC Committee;
- Employs a staff of Technical Instructors, Curriculum Developers and Subject Matter Experts with professional qualifications to provide essential/job skills, technical skills and hands-on training necessary for individuals to gain entry-level employment into the aerospace & advanced manufacturing industries and pathways into the following AJAC registered apprenticeship programs;
  - Industrial Machine Operator
  - Machinist & Machinist (Aircraft Oriented)
  - Manufacturing Precision Metal Fabricator
  - Plastic Process Technician
  - Tool & Die Maker
- Partners with Community and Technical Colleges to provide college credit to instruction where possible with an opportunity for career and educational pathways that can lead to further college educational opportunities and AJAC registered apprenticeship programs;
- Intentionally partners with State agencies such as Workforce Development Councils, other state and federal agencies and community-based organizations to provide a much-needed diverse pipeline for interested individuals into the aerospace and advanced manufacturing industries;
- Has the confidence and approval of the AJAC Production Apprenticeship Committee for continued recognition as a State recognized apprenticeship preparation program.

AJAC Production Apprenticeship Committee will provide a preferred entry endorsement of 240 OJT hours of previous experience into any of the listed AJAC apprenticeship programs once successful Manufacturing Academy™ completers have gained employment with an approved Training Agent and apply to AJAC apprenticeship programs through their employer.

Thank you for your consideration,

Signed by:

A handwritten signature in black ink that reads 'Tim Rabe'.

6AEE2529B07D440...

Tim Rabe

AJAC Production Apprenticeship Committee, Chairman



11/15/2024 MN  
Teri Gardner 11-15-24

October 23, 2024

Washington State Apprenticeship Training Council  
7273 Linderson Way SW  
Tumwater, WA 98501-5414

RE: Letter of Endorsement for AJAC Manufacturing Academy™ Apprenticeship Preparation Program


The AJAC Maintenance Apprenticeship Committee continues to provide a Professional and Technical Endorsement of the Manufacturing Academy™ as an apprenticeship preparation program.

Manufacturing Academy™ is administered by AJAC Advanced Manufacturing Apprenticeships (AJAC) and this endorsement means the Manufacturing Academy™:

- Is in good standing with the AJAC Committee;
- Employs a staff of Technical Instructors, Curriculum Developers and Subject Matter Experts with professional qualifications to provide essential/job skills, technical skills and hands-on training necessary for individuals to gain entry-level employment into the aerospace & advanced manufacturing industries and pathways into the following AJAC registered apprenticeship programs;
  - Aircraft Mechanic Airframe
  - Aircraft Mechanic Powerplant
  - Industrial Maintenance/Automation Technician
  - Industrial Manufacturing Technician
- Partners with Community and Technical Colleges to provide college credit to instruction where possible with an opportunity for career and educational pathways that can lead to further college educational opportunities and AJAC registered apprenticeship programs;
- Intentionally partners with State agencies such as Workforce Development Councils, other state and federal agencies and community-based organizations to provide a much-needed diverse pipeline for interested individuals into the aerospace and advanced manufacturing industries;
- Has the confidence and approval of the AJAC Production Apprenticeship Committee for continued recognition as a State recognized apprenticeship preparation program.

AJAC Maintenance Apprenticeship Committee will provide a preferred entry endorsement of 240 OJT hours of previous experience into any of the listed AJAC apprenticeship programs once successful Manufacturing Academy™ completers have gained employment with an approved Training Agent and apply to AJAC apprenticeship programs through their employer.

Thank you for your consideration,

Signed by:  
  
A5F3A1AF7FE243E...

Dave Trader

AJAC Maintenance Apprenticeship Committee, Chairman