

Program Checklist:

P1. Program Description including length of program in years and total hours (including split between classroom and worksite).

AJAC is pleased to submit this endorsement application for its Advanced Manufacturing Academy (AMA) program, a 6-month advanced manufacturing training program designed specifically for out-of-school and opportunity youth 16-29 years old. AMA combines industry recognized credentials from AJAC's Manufacturing Academy (MA), a 32-credit pre-apprenticeship training program, with a structured work-based learning experience aimed at transitioning young adults into entry-level advanced manufacturing occupations and apprenticeship pathways.

The proposed program includes two primary program elements: Part 1 consists of a 12-week education-based skills training program that includes 2 industry-recognized credentials, 4 industry certificates, and curriculum that is designed to: (1) prepare an entry level workforce for the dynamic needs of the advanced manufacturing industry, and (2) provide opportunities for long-term employment and career ladders for graduates. The two industry-recognized credentials participants receive in Part 1 signal their readiness for Part 2, which includes one of three work-based learning options: 1) paid internship (at least 3 months); 2) full-time, entry-level employment with OJT supports; and 3) registered apprenticeship (full-time, OJT, wage progression).

The MA curriculum that constitutes Part 1 of the AMA program is best described as a "try an occupation" model of career training, although specific focus is placed on occupations that are of high demand among manufacturing employers. The curriculum provides the foundational training elements that are closely aligned with Core Plus, strengthening AJAC's partnerships between K-12 and post-secondary institutions across Washington State. Additionally, as the letters of support included in this proposal indicate, the credentials associated with the program are also valued by numerous employers for both hiring entry-level workers and placing them into AJAC's registered apprenticeship programs.

Part 1 of AMA consists of the following industry-recognized credentials:

- **Advanced Manufacturing Basics 1:** Intro to manufacturing (e.g. safety, tools, applied physics, etc.); Applied Manufacturing Math; Industry Safety; and Blueprint Reading.
- **Advanced Manufacturing Basics 2:** Print Reading; Lean Manufacturing 101; Intro to Quality Assurance; Welding Technology; Intro to Composites; and Intro to Fluid Power Systems.

As part of the program, students gain CPR/ First Aid, OSHA 10, and forklift certifications, as well as soft skills training covering critical life and professional skill development, including: interpersonal communication, leadership, conflict resolution, financial planning, balancing home and work life, resume building, job search, and mock interviewing. The program closely simulates the workplace by reinforcing minimum attendance standards, dress code, safety, social norms, independent and collaborative assignments, performance assessments, and production goals. In total, students earn between 24-32 college credits (varies by college), 2 industry credentials, and 4 certifications.

Part 2 of the AMA expands the type of training AJAC has traditionally delivered through MA by moving learners from the MA classroom to the shop floor; it is designed to create a structured protocol for training and mentorship once AMA participants are placed into employment, and introduce OJT supports that students can pursue further through registered apprenticeship (as appropriate for student

educational goals and employer capacity). Students working full time will also have the opportunity to participate in foundational apprenticeship courses (100 level) and earn college credit through a partnering local community/technical college one night per week as they progress in their knowledge and skill attainment; participants can receive credit for these courses if they enter an AJAC registered apprenticeship program and apply for credit for previous experience/education (CPE).

P2. Estimated number of hours per week at worksite and in classroom (this approach may shift throughout the program).

Part 1 of AMA consists of up to 40 hours per week in the classroom. Part 2 consists of at least 20 hours of on-the-job training per week. By participating in structured OJT and foundational apprenticeship courses as part of their entry-level work experience, AMA completers will have the opportunity to apply for CPE should they choose to enter a registered apprenticeship program at an AJAC training agent.

P3. Demonstration of labor market demand for specified skills/career in local region.

AJAC anticipates initially serving students in the AMA program in South King County and Pierce County, and eventually scaling the program to serve Snohomish County, the Yakima Valley, and Spokane over the next 5 years. All of AJAC's apprenticeship programs link participants to high-demand sectors and occupations with family-supporting wages, and are designed to meet general skill standards identified for these occupations within federal Standard Occupational Classification codes. AJAC develops training curricula to meet these general standards, and vets the curriculum with employers through a DACUM (Delivering a Curriculum) process to ensure that the training meets their needs.

AMA participants will be prepared for entry-level advanced manufacturing jobs and occupations once they complete Part 1 of the program. These include jobs such as Production Technician, Production Machine Operator, Assembly Technician and Quality Inspector in a range of advanced manufacturing industries including aerospace, machinery manufacturing, food processing, bio-medical, and other manufacturing sub-sectors. The Employment Security Department projects small to modest growth over the next 5 years for each of these industries across Washington State (typically between 0.5 to 3%). Market demand for these occupations is typically stable or in-demand for all or most of these occupations; all five regions where we plan to offer the AMA program (King, Pierce, Snohomish, Yakima, and Spokane) are working with advanced manufacturing employers who are anticipating up to 40% retirement in their workforce over the next 5 years; employers from each of these regions utilize the credentials available through the AMA program to hire workers for all of these jobs.

AMA participants will also be linked to a range of apprenticeship programs and pathway options once they complete the program. These include our two youth apprenticeship occupations (Production Technician and Automation Technician), and a range of 1.5-5 year apprenticeships such as Industrial Manufacturing Technician, Machinist, Industrial Maintenance Technician, and Tool and Die Maker. All of AJAC's registered apprenticeships have demonstrated labor market demand across a variety of advanced manufacturing industries (e.g. aerospace, food processing, biomedical, etc.).

P4. Projected count of student enrollment, student completion, and anticipated employer participation for 5 years, post-pilot

	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Student enrollment	15	30	50	50	55	200
Student Completion	12	25	43	45	50	175
Employer Participation (cumulative)	3	6	12	15	25	25

P5. Concise description of development process to create the Career Launch program (e.g. who was involved, when, how was the program piloted, etc.)

AJAC has a longstanding history of providing high quality and outcome-driven programming in pre-apprenticeship and apprenticeship training for manufacturing professionals in Washington State. AJAC currently serves over 400 apprentices per year partnering with over 280 training agent employer partners, 12 community colleges and 15 school districts across Washington State. AJAC has operated its MA pre-apprenticeship training program since 2011, and currently serves over 200 pre-apprentices per year at 3 locations in the Puget Sound (South Seattle College’s Georgetown campus, AJAC’s Kent Training Center, and Bates Technical College). Our strategy to engage young adults in pre-apprenticeship has evolved over time, and has been informed through partnerships in various state and philanthropic initiatives across numerous communities in Washington State.

MA was originally designed as a strategy to rapidly re-skill an older population of unemployed workers looking to re-engage in the labor market through advanced manufacturing. Over the past 3 years, however, the program has engaged a progressively younger audience, with 50% of our current cohorts now under the age of 29. Young adult referrals have been strengthened through AJAC’s engagement in King County’s Career Connect Washington grant supported by the Workforce Development Council of Seattle-King County; the Roadmap Project, a collective impact initiative in South King County supported by the Community Center for Education Results; and numerous philanthropic workforce development initiatives focused on opportunity youth. However, our capacity to serve these young adults through current college partnerships is becoming more constrained, either because of limited FTE availability through existing college partners, or limited eligibility for workforce training dollars such as Worker Retraining and Basic Food. Career Launch FTEs, coupled with new state investments in student financial aid (e.g. Washington Opportunity Scholarship, Washington College Grant, and Passport to Apprenticeship) now make it possible to serve a new population of learners who can benefit from tuition-free skills training.

AJAC’s partnership with Bates Technical College (BTC), the Pacific Mountain Workforce Development Council (PacMtn), and the Department of Children Youth and Families’ Juvenile Rehabilitation (JR) program over the past 3 years to offer MA to incarcerated young men living in a secure facility in downtown Tacoma has especially helped shape the AMA program design. The vast majority of these young men participating in this program do not have their high school diplomas, which they are able to pursue as part of the training through BTC’s Technical High School. Over the course of this partnership, a

more intensive and longer program design was developed to allow these young men to engage in career connected learning opportunities in the advanced manufacturing industry; this past year the program was customized to a 6-month design that included 3 months of MA pre-apprenticeship training and 3 months of a paid internship. Early results from these cohorts are promising, with 92% of participants completing the MA pre-apprenticeship and 95% completing an internship. Berry Global, a Pierce County-based plastics processing company, has agreed to hire the majority of these young men as interns and has signaled a strong interest in continuing to partner in this capacity for future cohorts; they also recently became an AJAC training agent and will be able to offer apprenticeship training as a career advancement opportunity for its workforce. Other employer partners for this program include Creative Casting and CAB Incorporated.

Finally, AJAC's success in offering Career Launch Youth Apprenticeship programs across Washington State has helped to reinvigorate industry partnerships with numerous advanced manufacturing employers in King, Snohomish, Pierce, Yakima and Spokane counties, and has also catalyzed dynamic partnerships across the K-16, social service, and workforce development systems in each of these communities. CCW partners in Central Washington are especially interested in building more pipeline programs to provide more entry points for local youth and residents, including both Career Preparation and Career Launch programs. Building regional capacity to serve out-of-school youth is a focus for AJAC's current CCW Intermediary scopes of work in Yakima and Spokane, as well as the focus for King County initiatives funded by the numerous philanthropic grants. The proposed AMA program is directly informed from our experience working with incarcerated youth at BTC, and we strongly believe this program design can be replicated for a broader population of young people and implemented through our numerous Career Connect partnerships in all five regions.

P6. Signed letters of endorsement from all relevant partners, stakeholders, and regional networks.

AJAC is including signed letters of endorsement from key Career Connect partners in King County where we immediately plan to serve through available Career Connect FTE funding (Puget Sound Education Service District, Boys & Girls Club of King County, Renton Technical College and the Workforce Development Council of Seattle-King County). We are also including letters of endorsement from PacMtn, Bates Technical College (BTC), and DCYF – all of whom are key Career Connect stakeholders involved in the proof of concept pilot we are interested in expanding through the AMA program. We have also included letters of support from the South Central Workforce Council and OIC of Washington, who will be a critical partner in expanding the AMA to Central Washington. Finally, we are including 3 letters of support from employer training agents with whom we are currently partnering to support the MA partnership with JR, BTC and PacMtn: Berry Global, Creative Castings and CAB Incorporated.

P7. Description of resources, supports, or other processes to recruit and support students from underserved backgrounds (e.g. including students of color, students from low-income families, English Language Learners, students with disabilities, foster students, students experiencing homelessness, students from single parent homes, and other populations that face barriers to employment) or create an implementation plan to do so.

AJAC is engaged in multiple community partnerships with regional workforce development boards, social service agencies, high school re-engagement programs and the larger apprenticeship and pre-apprenticeship community in all 5 communities where we plan to offer the AMA program. AJAC also receives Workforce Investment and Opportunity Act (WIOA) Governor's Discretionary dollars to support

our current Youth Apprenticeship team; one of the main goals of these funds is to market and recruit WIOA-eligible youth into pre-apprenticeship and apprenticeship pathways. AJAC also received federal Women in Apprenticeship and Non-Traditional Occupations (WANTO) funding from the Department of Labor to provide customized marketing and supports to women interested in trades-related pathways.

AJAC's partnership with BTC, PacMtn and JR provides a strong network of support and guidance for incarcerated young men, all of whom meet at least one of the criteria for underserved backgrounds described above. The partnership is leveraging Department of Vocational Rehabilitation (DVR) funding to support the young men in training, and we are looking to further leverage those funds to support paid internships after they complete their classroom training. Additionally, AJAC's new MA partnership with the Boys and Girls Club in King County and the Workforce Development Council of Seattle-King County will provide recruitment and wrap-around supports to young people currently enrolled in high school re-engagement programming in Federal Way, and is prioritizing young people who are eligible for WIOA services.

Industry-Related Checklist

I-R1. Address of worksite(s) where Career Launch students will complete supervised training.

Many Pierce and King County Career Launch students will have the opportunity to participate in OJT at Berry Global: 635 East 15th Street, Tacoma WA 98421; Creative Casting Company: 3762 S 60th Street; and CAB Incorporated: 4200 B, Industry Drive E, Fife WA 98424 AJAC Business Development and Youth Apprenticeship staff are continuously working to identify additional internship sites and we plan to add to this list as the program expands.

I-R2. Hourly wage for Career Launch participants.

All AMA participants will make at least \$15 per hour; we anticipate most will start at an hourly range of \$15-\$18.

I-R3. List of entry-level positions and associated job descriptions for which a Career Launch student would be eligible for upon completion.

- *Production Technician/Production Specialist/Production Worker:* Production Technicians are responsible for assembling and testing manufactured goods before they are implemented for internal use or marketed to the general public. They ensure products are working exactly as intended, and are free of defects or others issues. Production Technicians usually work as part of a larger team, frequently interacting with manufacturing and Quality Assurance personnel.
- *Production Machine Operator:* Responsible for performing various tasks to set up, operate, monitor, troubleshoot and perform preventive maintenance on assigned production machines. Responsible for inspecting parts to specifications and making adjustments, or tool changes as necessary to maintain quality specifications. Sets up and operates a production machine in accordance with established procedures and guidelines. Reads and interprets blueprints and diagrams to select, position and secure machinery. Adjusts machine settings to complete tasks accurately, according to specifications and in a timely fashion.
- *Assembly Technician/Assembler:* Assembly technicians, also called team assemblers or fabricators, are manufacturing workers who use tools, machines and their hands to put together components on products like aerospace parts, farm equipment, and computers. They work in

teams, rotating through different smaller tasks. Assembly technicians may also spot defective parts, advise engineers and designers about the length of time needed to perform a certain assembly and decide how tasks should be distributed.

- *Quality Inspector 1 (Entry Level)/Test Technician:* Quality technicians are involved in the entire course of manufacturing. They inspect components before assembly, analyze trial products during development, or test finished goods. During these processes, they record and analyze the results in order to decide whether to certify or reject specific products. Some technicians use this data to solve production issues and recommend improvements. Other duties may include preparing inspection plans, training new technicians, and evaluating quality cost.
- *Other jobs descriptions that students might fall into:* Assembly/Inventory 1 Specialist (Entry Level); Automation Technician; Machine Operator; Bench Mechanic/Warehouse Worker; Production/Material Handler 1 (Entry Level); Factory Technician; Deburr and Finishing Technician; Mechanical Assembly Technician 1; and Machinist 1.

I-R4. List of specific skills and competencies required for completion of Career Launch program, with demonstrated alignment to entry-level positions, job descriptions, and average local salary ranges.

AJAC's has developed a comprehensive competency checklist which is used to support on-the-job training learning outcomes for all 11 AJAC registered apprenticeship programs. The checklist provides a rating scale across a range of close to 30 different skill development areas which mentors and AJAC staff can use to improve the OJT experience for AMA participants and AJAC apprentices.

I-R5. Employer attests that Career Launch program is in compliance with required federal, state and local regulations.

As a registered apprenticeship training provider, AJAC works with over 280 training agent employer partners who provide the OJT portion of the registered apprenticeship in compliance with all required federal, state and local regulations. The AMA program will be implemented with the same safety and regulatory precautions utilized in our registered apprenticeship programs.

Each employer partnering on the AMA program recognizes the value of the MA certificates students earn as part of the program, both in terms of signaling students' readiness to work at their companies but also for the students' readiness for next-step apprenticeship training, as they are available at each training agent.

I-R6. Employers will outline a student supervision and mentorship model.

Similar to registered apprentices, AMA participants will receive 1:1 mentorship support from journey-level workers/supervisors who are overseeing the OJT portion of the program. AJAC training agents have access to 4 hours of Mentorship Matters training where journey-level workers, mid-level administrators and owners are provided leadership skills and strategies for mentoring workers on the job. Learning outcomes include:

- Learning about their responsibilities as a mentor and leader on-the-job;
- Improving skills transference and productivity of apprentices and new workers while maintaining a safe working environment;
- Learning the six-step approach for teaching skills that includes techniques for demonstrating, evaluating and providing feedback for the worker learning new skills; and

- Learning how to create a safe environment for the mentee to practice their skills.

Additionally, supervisors will be able to utilize the AMA competency checklist to help ensure the OJT experience is meaningful to the student and valuable to the employer.

I-R7. Description of common career pathway(s) beginning with entry-level position specified with demonstration of likely salary growth over specific time period.

AMA participants will enter the advanced manufacturing industry through a variety of entry-level jobs described above, including (but not limited to) Production Technician, Production Machine Operator, Assembly Technician, Quality Inspector, and Automation Technician. AMA participants interested in pursuing next-step apprenticeship pathways will have the opportunity to pursue training through AJAC's 11 different registered apprenticeship programs, which range from 2,000 to 10,000 hours of OJT (and typically last between 1.5 years to 5 years in length). Registered apprentices begin their training at between 60-80% of the designated journey-level wage for that occupation, and receive progressive wage increases every 500-1,000 hours. Journey-level AJAC apprentices complete their respective programs making an average of \$26 per hour.

I-R8. Demonstrated competency alignment with relevant professional standards for specified entry-level positions when applicable.

As described above, AJAC developed a competency checklist that is designed to provide structured support and guidance for apprentices while learning on the job, and a tool which mentors can use to assess and teach the competencies associated with each skill area associated with that occupation. The checklist will be utilized to guide and frame Part 2 of the AMA for students and mentors.

I-R9. Signed letter from employer partners attesting that Career Launch completers will be ready for specified entry-level jobs, including an optional, non-binding commitment estimating number of Career Launch completers they plan to interview/hire over the first three years of the program.

Please see the attached letters of support from Berry Global, Creating Castings and CAB Incorporated. Both employer partners are also AJAC training agents, and have capacity to provide next-step apprenticeship training to AMA completers as appropriate.

Academic-Related Checklist

A-R1. List of academic institution(s) providing career-aligned instruction for Career Launch program.

AJAC will provide career-aligned instruction through instructors hired out of industry and employed (either full-time or part-time) by AJAC. The MA portion of the AMA program is currently listed at Renton Technical College and South Seattle College for 24 credits and Bates Technical College for 32; it is also on the books (but currently inactive) at Everett, Skagit, and Bellingham Colleges. Over the course of the project, AJAC plans to work with college partners in Snohomish, Yakima and Spokane counties as we work to replicate the AMA program in these communities.

A-R2. Curriculum scope and sequence aligned to skills and competencies provided in employment checklist.

AMA students will receive instruction through the following MA classes, all of which are designed to meet the entry-level hiring needs of advanced manufacturing employers. Curricula sections include Manufacturing Basics; Applied Physics; Basic Electrical; Applied Manufacturing Math; Composites; Blueprint Reading; Welding; Introductions to tools, safety and LEAN principles; and opportunities to earn Forklift, Flagger, First Aid, and CPR. Instruction is highly engaging and includes numerous hands-on projects and opportunities to develop 21st century work skills. The program also includes numerous opportunities to meet and engage with local employers, including site tours and mock interviews. During Part 2, AMA participants will also have the opportunity to participate in 100-level AJAC apprenticeship classes (for those who do not enter directly into an apprenticeship), and will be able to apply these classes towards Credit for Prior Experience/Education should they pursue an AJAC registered apprenticeship after completing the AMA.

A-R3. Demonstration of student supports (e.g. mentoring, advising, financial aid, tutoring) available for Career Launch students enrolled in the course.

All AMA students will be connected with an AJAC Apprenticeship Navigator who will assess student support needs, including (but not limited to) needs related to mentoring, advising, tutoring, financial aid, and other supportive services (such as childcare and transportation). AJAC plans to work with local CCW partners to connect eligible students to available state financial resources such as Washington State Opportunity Scholarship, Washington College Grant, and Passport to Apprenticeship. AJAC will also work to connect eligible students to available workforce training resources including (but not limited to) Worker Retraining and Basic Food Employment Training (BFET).

A-R4. Number of postsecondary credits provided and/or credential earned upon completion of program.

As described above, AMA students will have the opportunity to earn 2 Manufacturing Academy industry-recognized credentials, 4 certifications and up to 32 credits through Part 1 of the program. AMA participants who earn the 2 industry recognized credentials will have access to structured OJT supports in Part 2. AMA completers who pursue apprenticeship will also be able to apply for Credit for Prior Experience/Education through AJAC's apprenticeship committee.

A-R5. Demonstrated curricular alignment with relevant professional and/or academic standards associated with coursework and credential, when applicable.

Coursework for Part 1 of the AMA program has already been approved by the State Board of Community and Technical Colleges through AJAC's existing MA partnerships with BTC, RTC and SSC, and is designed to prepare students for entry into registered AJAC apprenticeship programs upon completion.

A-R6. Details of potential for current or future partnerships and/or scalability of the program within and across sectors and/or geographic locations (e.g. articulation, degree pathways) when applicable.

As a statewide apprenticeship training provider, AJAC is positioned to offer the AMA program at multiple geographic locations across Washington State; the intent behind this proposal is to endorse one overarching program model that can be customized to fit the employment needs of local manufacturing companies and the local assets of key education, workforce development and community-based organization partners. AJAC's experience with BTC, PacMtn, and JR demonstrated that MA participants can earn high school credit towards a secondary credential; we plan to further test

this through an emerging partnership with Open Doors re-engagement programs in South King County where competency-based high school credits can be awarded to relevant experiences. Additionally, our close partnerships with multiple regional workforce development boards has demonstrated a strong willingness to leverage WIOA and other resources (such as Department of Vocational Rehabilitation) to support MA and AMA completers into employment and apprenticeship training. We believe that these strong partnerships and program design elements make the program highly scalable across locations and sectors; AJAC's engagement with cross-system learning communities including numerous CCW Regional Networks and national efforts such as New America's Partnership to Advance Youth Apprenticeship will also allow AJAC to disseminate and share findings and promising practices identified through these efforts.

As described above, AJAC plans to work with key CCW partners in Snohomish, Yakima and Spokane to replicate the AMA program in these communities over the course of the project. AJAC is already receiving CCW Intermediary funds to build career connected learning capacity in Yakima and Spokane, and we plan to submit an application for Round 3 CCW Intermediary funds to more fully support the expansion and replication of the AMA model in these communities.