Received 05/13/2025
R B
Teri Gardner 5-15-25

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. The cost to program participants may be considered as a factor when evaluating for recognition and continued recognition. (WSATC Policy 2012-03 Sec. III).

SECTION 1: CONTACT INFORMATION AND PROGRAM SUMMARY

Name of Apprenticeship Preparation Program:

Seattle Public Schools Skilled Trades Pre-Apprenticeship

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

Seattle Public Schools

Contact Information:

Individual Authorized to Represent the Program

Name: Jay Connolly
Organization: Seattle Public Schools
Title: SPS Pre-Apprenticeship Coordinator
Phone: 206 850 7916
Email: jcconnolly@seattleschools.org
Mailing Address: SPS Career and Technical Education, MS 31-671PO Box 34165 Seattle, WA 98124-1165
Physical Address: JSCEE, 2445 3rd Ave S, Seattle, WA 98134

Point of Contact for Outreach and Enrollment

Name: Jay Connolly
Organization: Seattle Public Schools
Title: SPS Pre-Apprenticeship Coordinator
Phone: 206 850 7916
Email: jcconnolly@seattleschools.org
Mailing Address: SPS Career and Technical Education, MS 31-671PO Box 34165 Seattle, WA 98124-1165
Physical Address: JSCEE, 2445 3rd Ave S, Seattle, WA 98134

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

Name: Jay Connolly
Organization: : Seattle Public Schools
Title: SPS Pre-Apprenticeship Coordinator
Phone: 206 850 7916
Email: jcconnolly@seattleschools.org
Mailing Address: : SPS Career and Technical Education, MS 31-671PO Box 34165 Seattle, WA 98124-1165
Physical Address: JSCEE, 2445 3rd Ave S, Seattle, WA 98134

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:*

   Foundational math and material science skills support successful application to many construction apprenticeships. Carpentry-specific training includes Journey Carpenter-led modules in wood framing, interior systems, metal studs, drywall, window and door installation, and footings as well as common craft tool proficiency. Ironworker-specific training includes structural welding, rebar wire tie, fall restraint systems, and rigging using an in-classroom gantry crane, common knots, and cable harness. Cement Mason aligned content includes material science, volumes calculations, and hands-on demonstrations at the training center in Georgetown. Students pattern, fabricate, and install Sheet Metal flashings, cladding, and duct work as well as design and build branch transitions based on air flow calculations. Journey level electrician led units include Romex residential wiring, conduit bending, wire pulling techniques, and panel load calculations. Pipe trades hands-on training includes Pex, copper pipe soldering, and compression fittings, pipe welding, and drainpipe slope calculations. Drywall finishing, roofing, and the role of Laborers are

also demonstrated in single day units.

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

   15%

3. *<u>Target Participant Population and Successful Articulation Timeframe:</u> 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)*

   We are serving K-12 participants, so we chose the 12 month option.

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

We have one cohort per year drawing from two classroom of twenty students, for a combined capacity of forty students. We anticipate increasing our capacity to sixty students when we add a third classroom in west Seattle in 2026.

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

Minimum of 80% attendance across 270 hours, average grade of B or better, earn minimum of two industry recognized certifications, score B or better on industry math exam, 80% or better on qualifying strength & dexterity testing including accurate measurement & tool use, complete resume & mock interview

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.*

Apprentice-ship Program Name	Articulating Occupation(s)	Articulation Type *(select all that apply)*			
		Preferred Entry	Advanced Standing or Credit	Additional Points on Application/Interview	Guaranteed Interview

WSRCCWA	**Carpenters**	**X**			
CMPTCW	**Cement Masons**	**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)** *(eg: training provider, Advisory Board member, industry consultant, supportive services provider, etc.)*
RPAC, The Regional Pre-Apprenticeship Collaboration	Consultation and program development
IUOE Operating Engineers regional training program	Grading curriculum partner & staff training for grading, rigging, and excavator training.
Ironworkers Local 86	Facilitate evaluation day prep tours led by apprentices who graduated from the SPS program.
CorePlus Construction	Curriculum advisor & grant funding

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 programs curriculum describing the total number of hours, topics covered, method of delivery, etc.

The Seattle Public Schools (SPS) Skilled Trades Pre-Apprenticeship is a 270-hour training program offered to High School Seniors as a ½ school day program during their final semester before graduation. Our Seattle Schools project labor agreement, which prioritizes the hiring of SPS graduates, women, and BIPOC community members, requires contractors working on SPS projects to support construction training in our classrooms. Across the 18 weeks, units of study are organized by construction craft with SPS project contractors providing Journey level co-instructors for units on Carpentry, Ironworking, Cement Masonry, Operating Engineers, Sheet Metal, Electrical, Pipe Trades, Finishing Trades, General Labor, and Roofing. Each weekly unit incorporates craft aligned material science, physics, and applied math instruction and projects. Employability skills and the life skills needed to support stable employment are embedded across all units and a focus during the final 4 weeks career launch units. Training delivery is in person, 3 hours per day, 5 days per week, for 18 weeks. Three hours training sessions typically consist of a half hour classroom lesson, two hours of hands-on group build, and a half hours of individual or small group training.

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.*

We have a close working relationship with the Western States Regional Council of Carpenters and draw heavily from the Carpenters Career Connection curriculum, which is infused across our construction pathway courses from middle schools up through the Pre-Apprenticeship. We use the same Amatrol rigging curriculum as the Ironworkers and have a former instructor from their apprenticeship on staff. Our grading unit was developed with Operating Engineers to teach students soil slope math and safe use of our compact excavator. Our applied math curriculum is heavily informed by my own training in Sheet Metal Worker 66 apprenticeship. Our co-teaching model with contractor sponsored Journey Level workers allows us to co-create relevant lesson with new tradespeople each year. Our instructors teach the pre-concepts and vocabulary, the hands-on unit is co-taught, and the post lesson allows us to respond to feedback from the industry professional and address any deficits.

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

All of our instructors are OSPI-endorsed CTE Teachers with a background in the trades. The program coordinator Jay Connolly is a Journeyman Sheet Metal worker with a degree in Applied Mathematics who develops curriculum and supports in each classroom for industry certification and math and science content delivery. Our south Seattle classroom instructor Derek Voss is a Journeyman Ironworker and has taught at South Seattle College welding program. Our north Seattle instructor Dennis Kinsella is a Journeyman Carpenter who completed his apprenticeship in the Irish Army and has extensive experience in multiple aspect of Carpentry. We meet regularly as a teaching team to support each other's instruction and collaborate effectively with our guest instructors from other trades. As we add instructors we draw from industry and support qualified candidates transition to teaching rather than the other way around. This helps our students transition from teacher expectations to workplace expectations and ensures depth of industry knowledge.

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

Students can earn up to 16 credits through our partnership with South Seattle College Welding Program; WFT 100 Welding Theory 5 credits, WFT 111 Materials & Testing 5 credits, and WFT 124 Gas Metal Arc Welding 6 credits.

Please complete Appendix B – Curriculum Outline.

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;

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

The cost of the program to participants.

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:*

   Our target population is High School Seniors with an interest in construction careers. SPS Skilled Trades Pre-Apprenticeship is the instructional arm of our Student Community Workforce Agreement, SCWA. The purpose of the SCWA is systemic change to construction hiring practices and worksite culture through targeted workforce development. We actively recruit students in alignment with the SCWA priority hire categories of Women and Black, Indigenous, and People of Color (BIPOC). Students throughout the district are eligible for enrollment. Current program offerings are located at high percentage student-of-color schools to reduce barriers.

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.*

   Students are recruited through the pre-requisite course offerings; Woods 1&2, Metal 1&2, and Residential Carpentry. Pre-Apprenticeship Program locations are aligned with our goal of prioritizing students of color. Students from any school can travel from their home school during their lunch period to participate but the barriers are lowest for students whose schools hosts a program. Current locations are at Ingraham serving north Seattle AM and Interagency Academy, 82% students of color, serving south Seattle PM. Next steps planning includes adding programing at Chief Sealth High School, 79% students of color. Additionally, SPS channels of communication and

social media are used to create awareness regarding apprenticeships alignment with college programs and the family wage jobs to build student interest and get parents on board.

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

   Students' progress is closely monitored and available to students' parents and other school staff online through the source. Students and families receive email updates with photos twice a month. Students are provided all needed safety gear and materials for participation. All students have access to free lunch each day and free access to transit using their school ID. Our emphasis on cross credit earning in math and science allows students to stay on track for graduation while preparing for construction careers.

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.*

   Students receive 1-on-1 assistance with apprenticeship application, support gathering necessary documentation, and feedback from mock interview panels comprised of Apprenticeship staff, Union Business Agents, and General Contractors. This is the first year that staff capacity has been funded for continued post-graduation supports. The program coordinator will schedule check-ins with apprentices during their training weeks at or near their apprenticeship training facility. Available supports will include tradesperson mentorship, academic supports, and assistance navigating housing, stable transportation, and other barriers to success. Recently added staff capacity for grant writing may also allow for material supports to program graduates.

5. *Please describe the cost of the program to participants and describe how the program helps mitigate the cost to participants (i.e., scholarships, grants, financial aid, etc.), if applicable.*

   There is no cost of the program to participants. Students receive workwear, including work boots, Carhartt overalls, welding jackets, and all required personal protective

equipment. Building materials, texts, and curriculum are also provided at no cost to participants. Partners Foundry 10 support work readiness with drivers license fees reimbursement.

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.

Staffing has been allocated for tracking through ARTS. Submittal will use appendix C when social security numbers are not available due to Seattle Public School student privacy policies.

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 60 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 Brunsch, Management Analyst
Dept. of Labor & Industries, Apprenticeship Section
FRAV235@LNI.WA.GOV
509-426-0985

Recieved 05/13/2025
RB

Teri Gardner 5-15-25

APPENDIX A – PROGRAM SUMMARY

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

Seattle Public Schools (SPS), the largest K-12 school system in Washington state, has a deep commitment to every student's journey to ensure that each student will graduate ready for college, career, and life. SPS Career and Technical Education, (CTE), programs are publicly funded through Federal, State, and locally approved allocations and may also enhance programing through grants or levies and are offered at no cost to the students. Students interested in construction careers can qualify for a CTE Graduation Pathway by completing a series of course which include advance/ prepatory training, dual college credit and/or industry recognized certifications, as well as student leadership opportunities. Apprenticeship provides a direct path from high school to family wage careers in construction. Local demand for employees trained in the building trades taught are strong and anchored by our Seattle Public School project labor agreement covering 5 current school build and a recently approved levy for 5 additional school projects. Our program graduates are priority hire on these projects and other project labor agreements under the Regional Public Owners group which included Sound Transit, the City of Seattle, Port of Seattle, King County, City of Tacoma, and WSDOT.

Our target population is High School Seniors with an interest in construction careers. SPS Skilled Trades Pre-Apprenticeship is the instructional arm of our Student Community Workforce Agreement, SCWA. The purpose of the SCWA is systemic change to construction hiring practices and worksite culture through targeted workforce development. We actively recruit students in alignment with the SCWA priority hire categories of Women and Black, Indigenous, and People of Color (BIPOC). Students throughout the Seattle School district are eligible for enrollment. Current program offerings are located at high percentage student-of-color schools to reduce barriers.

Each classroom is led by one OSPI (Office od Superintendent of Public Instruction), Certificated CTE Teacher. A Program Coordinator schedules and assist with material purchasing, curriculum design, and 12 work-based-learning lessons in which industry experts, such as Journey level trades people co-teach a hands-on lesson. The Program Coordinator is also responsible for data reporting, ongoing graduate supports, and program promotion. CTE office staff support purchasing, curriculum alignment, and OSPI requirements. Current program staffing allocation is 2.0 funded positions, not including shared office staff support. 1.0 staffing covers program coordinator, a certificated CTE Teacher and Journeyman Sheet Metal Worker. 0.5 position covers north Seattle instructor, a certificated CTE Teacher and Journeyman Carpenter. The remaining

0.5 position covers south Seattle instructor, a certificated CTE Teacher and Journeyman Ironworker.

The duration of the program is 270 hours, which is half day during student's final semester of High School. Each classroom cohort has a 20-student capacity. We host two concurrent, once a year cohort at two locations, one for students at north Seattle Schools and one serving south Seattle schools. We will and a cohort for west Seattle schools in two years once the facility approved in our recent levy in built. This will increase our capacity from 40 students to 60 students. Students receive all materials and safety gear at no cost. Students may also receive personal gear as donations allow. In program supports for apprenticeship application including mock interview panels, job shadows, and site tours of apprenticeship training centers.
SPS Skilled Trades Pre-Apprenticeship holds articulation agreements with: Western States Regional Council of Carpenters and Cement Masons & Plasterers Training Centers of Washington.

Our first post WSATC (Washington State Apprenticeship and Training Council) recognition cohorts in 2023-24; of the 13 pre-apprentices in this cohort, seven successfully completed the program and two are currently working as registered apprentices. One additional graduate is working for Elmecco Electric, an employer who hires apprentices where he is currently on CITC (Construction Industry Training Council) waitlists to enter apprenticeship. Our pre-apprentices earn Forklift Operator, OSHA10, 1st Aid/CPR/AED, and Flagger as well as endorsements for compact excavator, scissor lift and scaffold use. Students earn up to 16 dual credits though South Seattle College Welding Program in these courses: WFT 100 Welding Theory, WFT 111 Materials & Testing, and WFT 124 Gas Metal Arc Welding.

The targeted articulation rate for this program is 15%, measured at 12 months following program graduation. We are currently at 15.38% articulation for that cohort nine months from their graduation. Positive outcomes in addition to apprenticeship include preparation for college study in construction management, CAD (Computer Aided Drafting), and welding, personal discernment about construction career pathways, and deeper engagement in math, physics, and material science through construction applications.

Students who are on track for graduation in June can qualify to join the Pre-Apprenticeship Program cohort at the end of their second year of construction courses. Students self-select for an evaluation day where they must pass qualifying math, strength and dexterity test, tool identification, and accurate measurement tests with an 80% or better. To successfully complete the Pre-Apprenticeship Program students must meet the following requirements: 80% on time attendance, B grade or better, earn a minimum of two industry recognized certifications, earn a

B or better on the industry math test and strength & dexterity testing including accurate measurement & tool use, and complete resume and mock interview.

Received 05/13/2025
RB
Teri Gardner 5-15-25

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. Introduction to Construction Total Learning Hours for Unit: 5

Curriculum Elements:

☐ Industry/occupation specific safety training and education

☐ Employability skill development

☒ Industry/trade specific skills and knowledge

-Demonstrate knowledge with post-secondary education options in construction including college and apprenticeship options.

-Describe relationship between certifications, pay scales, and job opportunities in construction.

-Draft a timeline of the construction of a modern building from ground preparation to completion. Include which trades would participate and in what sequence.

2. Materials Science Total Learning Hours for Unit: 30

Curriculum Elements:

☒ Industry/occupation specific safety training and education

☐ Employability skill development

☒ Industry/trade specific skills and knowledge

-Identify construction materials

-List several common materials used in the design and construction of structures.

-Select suitable materials for making a particular object based on their properties.

-Explain the advantages and disadvantages of common materials used in engineering structures.

-Classify matter

-Summarize the spatial relationships found on the Periodic Table of Elements

-Apply basic chemistry to explain physical and chemical characteristics of the four categories of materials.

-Use critical thinking to evaluate and apply appropriate materials choice for specific applications.

-Define types of bonding.

-Relate properties to types of bonding

-Distinguish between chemical and physical properties of a material.

-Differentiate between oxidation and reduction especially as they pertain to galvanic corrosion.

-Define thermal expansion and evaluate the effects of thermal expansion on design considerations.

-Describe the response to force or stress using the terms: workability (malleability and ductility), brittleness, hardness, elasticity and plasticity, toughness, and strength.

-Define mechanical properties: tensile strength, compression, fatigue, flexure, impact, torsion, hardness, and shear.

-Relate the physical characteristics of materials such as workability and brittleness to the mechanical properties such as tensile and compressive strength to impact design considerations.

3. **Construction Tools Total Learning Hours for Unit: 25**

Curriculum Elements:

☒ Industry/occupation specific safety training and education

☐ Employability skill development

☒ Industry/trade specific skills and knowledge

-Demonstrate knowledge of 50 tools commonly used in construction by labeling images of each on their pre-apprenticeship tool identification test.

-Given common construction materials, students will identify appropriate tool and blade/ bit for cutting or drilling.

-Describe how ergonomics affects tool selection and set up.

-Explain how tool use and set up differ based on operator's dominant hand.

-Name PPE required for each tool.

-Demonstrate safe and proficient use of 30 common power tools including saws, drill & rotary tools, pneumatic, sanding & grinding, and welders.

4. Construction Safety Total Learning Hours for Unit: 25

Curriculum Elements:

☒ Industry/occupation specific safety training and education

☐ Employability skill development

☒ Industry/trade specific skills and knowledge

-Successfully complete OSHA10 certification and, forklift operator, compact excavator, scissor lift operator, &/or Flagger training.

-Students can differentiate between OSHA safety requirements, job site requirements, and shop standards/ best practices.

-Students know where to find MSD for hazardous chemicals and can put a safety plan together for their use including PPE, proper ventilation, and disposal.

-Students fill our hot work permits and can plan for fire prevention and extinguishing.

-Students can fill out an incident report for a hypothetical workplace injury, including all necessary information.

5. Construction Measurement Total Learning Hours for Unit: 20

Curriculum Elements:

☐ Industry/occupation specific safety training and education

☐ Employability skill development

☒ Industry/trade specific skills and knowledge

-Students will correctly measure 20 wood sample +/- 1/16th inch in 2 minutes.

-Given object with a set orientation, student can provide measurements for X, Y, & Z axis.

-Describe tolerances and margin of error and asses for quality control.

-Convert common construction units of measurement, such as engineering scale, gauge, lumber 1/4s, and pipe schedules, to inches using charts.

-Measure flat, round, and curved object using a variety of measurement devices such as calipers, tape measures, and transfer tapes.

6. Introduction to Drawings, Print Reading, and Layout Total Learning Hours for Unit: 40

Curriculum Elements:

☐ Industry/occupation specific safety training and education

☐ Employability skill development

☒ Industry/trade specific skills and knowledge

-Produce a dimension drawing of a simple 3D object including top, front, side, and perspective views.

-Build a scale model of a simple building from information gathered from blueprints.

-Locate and reference blueprint title block, legend, revisions, and window and door schedules.

-Recognize and reference industry specific icons such as welding and electrical symbols.

-Lay out parallel and perpendicular lines using chalk lines and 3-4-5 triangle.

-Lay out 90-,45-,60-, & 30-degree angles based on right and equilateral triangles.

-Use field layout techniques to draw circles and ellipses.

7. Construction Math Total Learning Hours for Unit: 40

Curriculum Elements:

☐ Industry/occupation specific safety training and education

☐ Employability skill development

☒ Industry/trade specific skills and knowledge

-Students must pass a construction industry math test covering fractions, decimals, area/ volumes, and industry-based word problems.

-Demonstrate site survey and field measurement techniques using basic trigonometry functions to create site maps including calculation of height using distance and clinometer angle.

-Design and build basic truss sections based on properties of triangles.

-Build a set on containers including triangular, rectangular, and cylinders to hold set volumes.

-Use ohms law to calculate volts, current, and resistance

-Develop materials purchasing and cut lists from blueprints.

-Design buoyant objects in wood, steel, and alum based on weights, volumes, density, and water displacement.

8. Applied Physics Total Learning Hours for Unit: 20

Curriculum Elements:

☒ Industry/occupation specific safety training and education

☐ Employability skill development

☒ Industry/trade specific skills and knowledge

-Identify sheer and tensile loads and select appropriate fasteners.

-Explain thermal and seismic expansion and design simple expansion joints.

-Find examples of cantilever supports in blueprints and describe load transfer.

-Calculate snow load for a roof system and describe how roof pitch impacts load.

-As a team students design and build a tripod hoist using pulleys.

-Anticipate and describe how mast tilt angle and height impacts center of gravity on a forklift

9. Construction Rigging Total Learning Hours for Unit: 10

Curriculum Elements:

☒ Industry/occupation specific safety training and education

☐ Employability skill development

☒ Industry/trade specific skills and knowledge

-Calculate and mark center of gravity for complex object, then lift and check for level.

-Calculate load distributions per rig point.

-Chart fulcrum location relative to load imbalance on a basic see saw.

-Calculate crush force for rebar bundle and design support sling.

-Demonstrate knowledge of ANSI crane signals.

-Build and test crimped cable rigging slings.

10. Hydraulics Total Learning Hours for Unit: 5

Curriculum Elements:

☐ Industry/occupation specific safety training and education

☐ Employability skill development

☒ Industry/trade specific skills and knowledge

-Differentiate between kinetic and potential energy.

-Calculate input and output horsepower for hydraulic systems.

-Use Pascal's Law to calculate force, area, and pressure.

-Identify components of hydraulic lift systems on pallet jack, forklift, compact excavator and scissor lift.

-Adjust PSI for pneumatic tools and chart pressure required for various fasteners and processes.

11. Fasteners Total Learning Hours for Unit: 5

Curriculum Elements:

☐ Industry/occupation specific safety training and education

☐ Employability skill development

☒ Industry/trade specific skills and knowledge

-Choose appropriate fasteners for common construction applications, differentiating between the role of adhesives, welds, nails, screw, bolts, and rivets.

-Set expansion fasteners in sheet metal and concrete.

-Describe the role of diameter, thread count, washers, and torque in bolt up connections.

-Conduct destructive testing of 5/16x18 threading on wood, alum, steel, and Delrin.

-Identify screw and bolt head styles and their applications.

12. Electricity in Construction Total Learning Hours for Unit: 20

Curriculum Elements:

☒ Industry/occupation specific safety training and education

☐ Employability skill development

☒ Industry/trade specific skills and knowledge

-Identify common construction electrical hazards for power tool use, scaffolds, cranes, and ladders.

-Describe the steps to initiate and conclude a lock out/ tag out.

-Explain electrical movement, define volts, amps, and ohms, and explain the meaning of volt-amp curve.

-Explain how rate of flow of electrical current is measured in a circuit.

-Build a functional 110 circuit including plug in, switch, outlet, and light fixture.

-Describe the effect of DC direct current versus AC alternating current and electrode positive versus electrode negative in welding.

13. Company Organization and Operations Total Learning Hours for Unit: 5

Curriculum Elements:

☐ Industry/occupation specific safety training and education

☒ Employability skill development

☐ Industry/trade specific skills and knowledge

-Explain why the ratio of apprentices to Journey level workers is set and by whom.

-Give examples of procedures or policies set by a general contractor, rather than by OSHA.

-Define project labor agreements and priority hire.

-Describe Labor and Industry benefits and regulations for workers.

-Articulate fair practices and mutual obligations between labor and management.

-Name the entities or organizations that might inspect work and require remediation.

-Describe the role of employers, employees, and general contractors for just workplace conditions free from harassment, discrimination, and bullying.

14. Planning and Scheduling Total Learning Hours for Unit: 5

Curriculum Elements:

☐ Industry/occupation specific safety training and education

☒ Employability skill development

☒ Industry/trade specific skills and knowledge

-Describe site work and the role of Surveyors, Laborers, Masons, Operating Engineers in preparing the site.

-List components of the structural build and the trades involved.

-Describe the roles and common sequencing of mechanical trades, exteriors, water abatement, and finishing trades.

-Name some common project delays and their causes.

15. Estimating Total Learning Hours for Unit: 5

Curriculum Elements:

☐ Industry/occupation specific safety training and education

☒ Employability skill development

☒ Industry/trade specific skills and knowledge

-Describe the difference between a straight bid and time and materials quote, including advantages to both.

-Pre-calculate materials cost and labor hours for in class projects and compare to actuals.

-Develop material patterning strategies and cut lists for greatest efficiency and materials conservation.

-Identify and recommend cost saving change order to reduce costs.

16. Financial Literacy Total Learning Hours for Unit: 10

Curriculum Elements:

☐ Industry/occupation specific safety training and education

☒ Employability skill development

☐ Industry/trade specific skills and knowledge

-Students will make a draft comparison of two transportation plans that addresses cost of vehicle, loan rates, insurance, maintenance, and fuel costs.

-Compare home ownership to home rental over a 5-,10-,15-, & 20-year period and articulate advantages and disadvantages for each.

-Describe pensions/ 401k/ Social Security/ and disability benefits comparing two local unions benefits packages.

-Estimate living expenses for a first-year apprentice in a chosen trade. Include housing, transportation, food, health, clothing, and tools.

Received 05/13/2025

RB

Teri Gardner 5-15-25

Preparatory Program Name:	**SPS Skilled Trades Pre-Apprenticeship**	**Total Number of Participants:**	**13**
		Total Participant Graduates:	**7**
Reporting Period, Earliest Date:	**4/1/2024**	**Total Withdrawals/Incomplete:**	**6**
Reporting Period, Latest Date:	**9/30/2024**	**Total Grad's Articulated into Reg' Apprenticeship:**	**2**

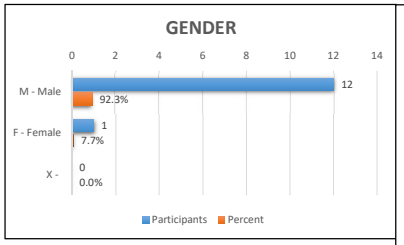
Washington State Department of Labor & Industries

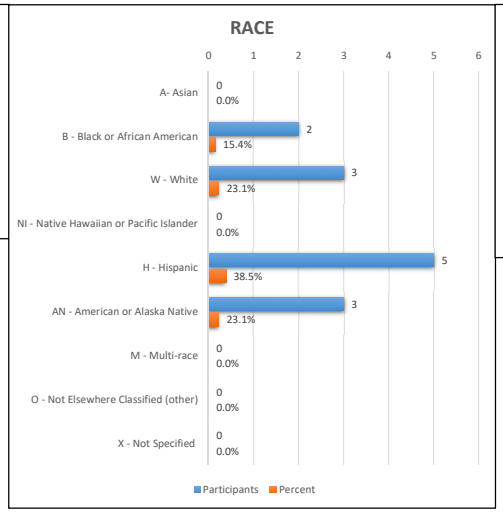
**Please refer to the instructions tab for information on how to properly complete this document.*

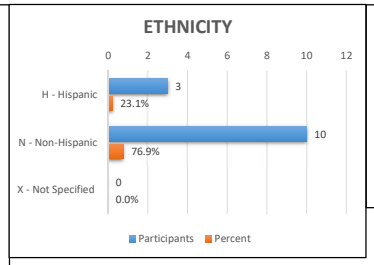
Participant Information - Total of Cohorts										Registered Apprenticeship Articulation Information			
		YYYY/MM/DD	M,F,X	A,B,W,NI,H,AN,M,O,X	H,N,X	Yes,No	YYYY/MM/DD	A,W,C	YYYY/MM/DD			YYYY/MM/DD	
Last Name	**First Name**	**Birth Date**	**Gender**	**Race**	**Ethnicity**	**Veteran**	**Cohort Start Date**	**Current Status**	**Graduation Date**	**Registered Apprenticeship Name**	**Occupation**	**Date of Registration**	**Apprentice ID Number**
13	13	13	13	13	13	13	13	13	13	2	2	2	2

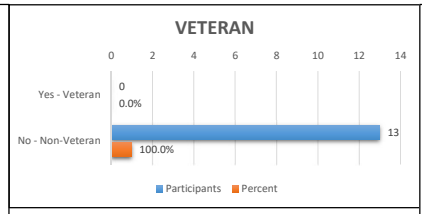
Articulation Rate 28.57%

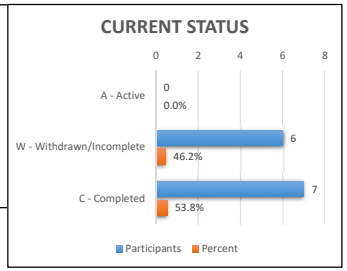
Hide Chart Hide Chart Hide Chart Hide Chart Hide Chart











Received 05/13/2025
RB

PACIFIC NORTHWEST IRONWORKERS AND EMPLOYERS APPRENTICESHIP & TRAINING COMMITTEES

Teri Gardner 5-15-25

Articulation Agreement – Tier 2

Between

Iron Workers Local Union 86

And

Seattle Public Schools – (**SPS**)

This is a tier 2 agreement, by and between the Iron Workers Local Union 86 and Apprenticeship & Seattle Public Schools (**SPS**) is made to provide **SPS** graduates the option to earn preferred enrollment in the Iron Workers Local 86 Pre-apprenticeship and Apprenticeship program. It is the intent of this cooperative effort to provide the student with non-duplicative program of study leading to enhancing employment opportunities.

Now, therefore, it is agreed by and between the parties as follows:

1. Preferred enrollment in the Iron Workers Local 86 Pre-apprenticeship and Apprenticeship program may be granted through this agreement. Preferred enrollment means that **SPS** graduates who, because of the quality of preparation at **SPS** meet the criteria identified in section 2, receive preferred entry status upon application and receive a guaranteed 10 points through the application process. Preferred enrollment does not constitute direct entry, candidates must demonstrate skills and abilities acquired through the **SPS** program. The awarding of such direct enrollment is contingent upon the joint cooperation of the two institutes.

2. The courses articulated for preferred enrollment credits are outlined below. Preferred entry requirements include:

a. **SPS** will appear on the transcript and application.

b. Preferred enrollment will only be given for students who successfully complete all **SPS** courses.

c. Considered preferred enrollment will be contingent on the current employment needs and out of work list of Iron Workers Local 86 Apprenticeship program.

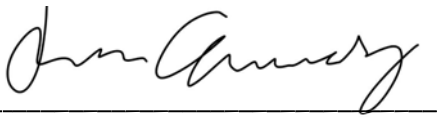
3. Students must complete the **Seattle Public Schools** program in its entirety and submit a graduation certificate and other completed certificates to be eligible for preferred acceptance.

JATC 86 – Eric Sanchez • eric@iw86appr.org • (206) 244-2993 • FAX (206) 244-3043
4550 S. 134th Pl., Ste 101 • Tukwila, WA 98168 • Serving: WESTERN WASHINGTON

4. Both parties agree to evaluate this agreement every 3 years and in the contact of students benefits, program efficiency and effectiveness. **SPS** will maintain its level of quality as determined by the Iron Workers Local 86 Apprenticeship program evaluation.

5. This agreement shall begin May 7, 2025.

The undersigned parties accept and approve THIS AGREEMENT



05/07/2025

Jay Connolloy, Date

SPS Construction Career Connected

05/07/2025

Eric Sanchez Date

Coordinator

Iron Workers Local Union 86

Recieved 05/13/2025
RB

Teri Gardner 5-15-25

Articulation Agreement

This Articulation Agreement is made and entered into as of May 9, 2025, by and between:

- **NW Laborers Employers Training Trust Fund ("NWLETT")**, a Washington State Registered Apprenticeship located at 27055 Ohio Avenue NE, Kingston, WA, 98346.
- **Seattle Public Schools ("SPS")**, a public school district located at 2445 3rd Ave S, Seattle, WA 98134

WHEREAS, NWLETT is dedicated to providing skilled labor for the construction industry through our training program.

WHEREAS, SPS offers a pre-apprenticeship program designed to prepare students for careers in the construction trades.

WHEREAS, NWLETT and SPS desire to collaborate to create a seamless pathway for qualified graduates of the SPS pre-apprenticeship program to enter the NWLETT training programs.

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants contained herein, the parties agree as follows:

1. Purpose

The purpose of this Agreement is to establish a formal partnership between NWLETT and SPS to:

- **Facilitate** the transition of qualified SPS pre-apprenticeship program graduates into NWLETT apprenticeship programs.
- **Provide** a preferred applicant status for SPS pre-apprenticeship program graduates during the NWLETT application process.
- **Award** additional points on the NWLETT New Entry Assessment to qualified SPS pre apprenticeship program graduates.

2. Preferred Applicant Status

SPS pre-apprenticeship program graduates who meet the following criteria will be granted preferred applicant status when applying to NWLETT apprenticeship programs:

1. A preferred entry in the NWLETT apprenticeship program may be granted through this agreement. Preferred enrollment means that Seattle Public Schools program graduates who, because of the quality of preparation at the Seattle Public Schools program, meet criteria identified below in Section 2 will be granted preferred entry on their application upon successfully completing an application at our next available Trade Orientation; (Trade Orientations are scheduled twice a month), preferred entry into the NWLETT state-recognized apprenticeship. Preferred enrollment does not constitute direct entry for students that complete the Seattle Public Schools program. The awarding of such preferred enrollment is contingent upon the joint cooperation of the two institutions.

2. The courses articulated for preferred enrollment are outlined below:
    a. Seattle Public Schools program will appear on the transcript and/or supporting documentation.
    b. Successful completion of the SPS pre-apprenticeship program with a certification as a supporting document.
    c. The student must meet the minimum requirements of the NWLETT Apprenticeship as shown in the Northwest Laborers Apprenticeship Committee Apprenticeship Program Standards (https://lni.wa.gov/licensing-permits/apprenceship/_docs/0071.pdf) (Be 18 years of age upon date of application.)

3. New Entry Assessment Points

Qualified SPS pre-apprenticeship program graduates will receive 10 additional points in the Technical/ Trade Related section on the NWLETT New Entry Assessment.

4. Responsibilities

a. NWLETT:

- Develop and maintain communication with staff and students outlining the benefits of the articulation agreement for SPS pre-apprenticeship program graduates.
- Work collaboratively with SPS to promote the articulation agreement and NWLETT apprenticeship programs to SPS students.
- Provide clear and timely application and enrollment procedures for SPS pre-apprenticeship program graduates.
- Award the agreed-upon additional points on the New Entry Assessment to qualified SPS pre-apprenticeship program graduates.
- NWLETT will help to support the Seattle Public Schools program as guest speakers, help to support training center tours.

b. SPS:

- Advise program participants about the articulation agreement and its benefits.
- Assist graduates in completing NWLETT apprenticeship program applications.
- Provide NWLETT with a list of qualified pre-apprenticeship program graduates upon program completion.
- Seattle Public Schools will support the referred students as a mentor and provide needed resources for the student's success.
- Seattle Public Schools referrals must demonstrate strong retention within the program, and contribute to the diversity needs of the NWLETT by referring qualified women and minority candidates.

5. Term and Termination

This Agreement will be effective for a period of 2 years from the date of execution. The agreement may be terminated by either party upon 60 days' written notice to the other party and is subject to change by either party at any time.

1. The agreement may be revised/ modified by mutual agreement as needed.
2. Both parties may advertise this agreement.
3. Both parties agree to the Curriculum confidentiality and Student confidentiality

6. Entire Agreement

This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior or contemporaneous communications, representations, or agreements, whether oral or written.

7. Amendment

This Agreement may be amended only by a written agreement signed by both parties.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

NW Laborers Employers Training Trust Fund ("NWLETT")

By: _____

Name: Brandon Jordan

Title: Training Director

Seattle Public Schools (“SPS”)

By: _____
Jay Connolly (May 10, 2025 12:35 PDT)

Name: Jay Connolly

Title: SPS Pre-Apprenticeship Coordinator

5-9-2025 NWLETT-SPS Articulation Agreement

Final Audit Report 2025-05-10

Created:	2025-05-10
By:	Brandon Jordan (bjordan@nwlett.edu)
Status:	Signed
Transaction ID:	CBJCHBCAABAAwa4Z4HI9tYC9f9KRtqr3E7J3WcXHhpaX

"5-9-2025 NWLETT-SPS Articulation Agreement" History

Document created by Brandon Jordan (bjordan@nwlett.edu)
2025-05-10 - 7:34:19 PM GMT

Document emailed to Jay Connolly (jcconnolly@seattleschools.org) for signature
2025-05-10 - 7:34:23 PM GMT

Email viewed by Jay Connolly (jcconnolly@seattleschools.org)
2025-05-10 - 7:34:51 PM GMT

Document e-signed by Jay Connolly (jcconnolly@seattleschools.org)
Signature Date: 2025-05-10 - 7:35:52 PM GMT - Time Source: server

Agreement completed.
2025-05-10 - 7:35:52 PM GMT

Adobe Acrobat Sign