



August 27, 2020

Department of Labor and Industries  
Washington State Apprenticeship & Training Council  
Attn: Program Manager, Apprenticeship Section  
PO Box 44530  
Olympia, WA 98504-4530

Dear WSATC,

Perry Technical Institute is submitting this letter to provide information regarding the partnership between Pacific Northwest Ironworkers & Employers Joint Apprenticeship Training #86 and the Welding Technology program of PTI.

Established in 1939, Perry Technical Institute is a private, non-profit educational institution which offers 13 specialized technical training programs. Created out of a desire for individuals to acquire the skills necessary to achieve gainful employment and have opportunities for advancement, Perry has developed a reputation for being the place to go when you are ready for a career. In the Welding Technology program, students learn to perfect the craftsmanship of welding through a tough curriculum that mirrors industry standards. During the one-year program, students will be exposed to safety, blueprint reading, welding symbols, pipe, I beam and flange layout configurations, intro to metallurgy, fabrication techniques, cutting and gouging techniques along with various welding processes and inspection methods in accordance with (WABO) Washing Association Of Building Officials and (AWS) American Welding Society code standards.

At Perry Technical Institute, we as educators are not only trying to instill (hard skills) the craftsmanship of welding and learning the appropriate skills to succeed in industry, but are also dedicated to implementing the soft skills as well. Students are expected to treat every day in the classroom as though it's the world of work. While adhering to strict attendance requirements, random drug testing, extensive safety practices and conduct as it relates to professionalism, students get a good feel of what will be expected of them out in industry. During lab exercises and the final quarter certification and externship phase, students are held to inspection and qualifying standards of WABO 27-13, API 1104 and AWS D1.1 code.

Establishing this partnership between Pacific Northwest Ironworkers & Employers Joint Apprenticeship Training and PTI creates a direct channel to communicate the current needs of industry to our program and develops a pathway for graduates of the Welding Technology program to pursue apprenticeship.

If you have any questions regarding this agreement, feel free to contact me.

Thank you,  
Scott Hamway, CWI  
Welding Department Head  
Scott.Hamway@perrytech.edu



- Communication Plan  
Pacific Northwest Ironworkers & Employers Joint Apprenticeship Training #86 has been invited to join the Welding Technology Program Advisory Committee (PAC). Committee members meet bi-annually to discuss the curriculum of the program and comment on the appropriateness and adequacy of the program objectives, length, curriculum content, and the adequacy of facilities and equipment. Additionally, Pacific Northwest Ironworkers & Employers Joint Apprenticeship Training #86 has been invited to attend our bi-annual employer expo as well as regularly present to Welding Technology classes to educate our students on the career paths available to them through apprenticeship.
- Safety Training  
Perry Technical Institute and the Welding Technology program focus on a diversity of safety practices. Every student becomes certified by completing the OSHA 10 Construction Industry training. Each cohort attends a monthly safety meeting where a presentation on general safety topics are covered and tests are given on that specific safety topic. Following strict industry safety guidelines, students are given tool demonstrations, adhere to ladder and fall protection training, confined space training, and Lock Out/Tag Out/Try Out precautions, all of which utilize the proper personal protective equipment for specific hazards.
- Math Skills  
The Welding Technology program requires a series of entrance exams. The “general math” exam ensures that each student entering the program has met the minimum guidelines to understand the upcoming concepts. Throughout the curriculum, students receive instruction on math related to the welding industry such as Joules input calculations, filler deposition computation, material and consumable estimation, basic geometry as well as cord lengths for flange layout.
- Recruitment and Retention  
Recruitment efforts take place in schools throughout Washington State paying special attention to the Lower Yakima Valley and rural communities who may have less of an opportunity than students who attend school in more populated areas. Additional events are attended by the admissions team at veteran, Hispanic, and women focused events. Proven to increase retention rates, all new students at PTI attend a series of workshops that focus on the goal of providing students with the essential study/life skills that will allow them to be successful in their academic career and beyond. The workshops cover topics such as time and stress management, Title IX and harassment, financial preparedness, self-awareness, and goal setting. Students are also held to a progressive disciplinary system that oversees academic, conduct, and attendance issues; procedures are in place to provide interventions for students encountering struggles.
- Participant Demographics  
The Welding Technology department currently has 27 students. The average student age is 22.74. Hispanic students make up 56% of the currently enrolled students and 44% of the students are white. There are currently two veteran students enrolled.

*Teri Gardner 8-27-2020*

# Welding Technology

The Welding Technology program equips students with the skills they need to gain employment as entry-level welders in fields such as structural iron, manufacturing, fabrication, and equipment repair.

The program stresses safe practices for the welding industry. Students are immersed in classroom theory and hands-on lab instruction in welding, fitting, and related metalworking processes. The program provides students with a foundation that includes print reading and fabrication plans for welders. Coursework covers oxyfuel cutting and welding, carbon arc cutting and gouging, shielded metal arc welding, gas metal arc welding, flux core arc welding, gas tungsten arc welding, and pipe welding.

The curriculum progresses into advanced fabrication and metal working equipment techniques. Students are required to demonstrate their skills by completing advanced welding projects. The program prepares students to sit for the American Welding Society (AWS) and Washington Association of Building Officials (WABO) certification tests.

The Welding Technology program is 12 months in length (four quarters). The student will earn 77 credit hours which are 1,344 clock hours. Tuition is payable on a quarterly basis. There are four quarters in an academic year.

This training program concludes with an externship off campus, or with the completion of a capstone project on campus. The student to instructor ratio for the Welding Technology program is 22:1.

## PROGRAM OUTLINE

|           |                                     |                                 |
|-----------|-------------------------------------|---------------------------------|
| Quarter 1 |                                     |                                 |
| WLD 110   | Introduction to Welding             | 6.0                             |
| WLD 112   | Introduction to Print Reading       | 6.5                             |
| WLD 114   | Cutting, Gouging & Torch Techniques | 8.0                             |
|           |                                     | Subtotal: 20.5                  |
| Quarter 2 |                                     |                                 |
| WLD 121   | Gas Metal Arc Welding               | 10.0                            |
| WLD 122   | Shielded Metal Arc & Pipe Welding   | 10.0                            |
|           |                                     | Subtotal: 20.0                  |
| Quarter 3 |                                     |                                 |
| WLD 130   | Flux Cored Arc Welding              | 10.0                            |
| WLD 131   | Gas Tungsten Arc Welding            | 10.0                            |
|           |                                     | Subtotal: 20.0                  |
| Quarter 4 |                                     |                                 |
| WLD 140   | Fabrication Techniques              | 8.0                             |
| WLD 142 E | Externship                          | 4.0                             |
| WLD 143   | AWS/WABO Certification Prep Course  | 4.5                             |
|           |                                     | Subtotal: 16.5                  |
|           |                                     | <b>Total Credit Hours: 77.0</b> |

## Welding Technology Book and Tool List

The book and tool list for students in the Welding Technology program is intended to be a minimum requirement to complete the program. The book and tool list will be provided no later than the first day of class. For specifics on cost of books, training materials, uniforms, and tools, please refer to Tuition and Fees.

## Welding Technology Equipment List

Students in the Welding Technology program utilize the following equipment:

Computers  
Shielded metal arc welding (stick)  
Gas tungsten arc welding (TIG/Heliarc)  
Gas metal arc welding (MIG)  
Flux cored arc welding  
Plasma arc cutting and gouging  
Carbon arc cutting and gouging  
Oxygen acetylene cutting, brazing, and soldering apparatus  
Variety of hand tools

## **COURSE DESCRIPTIONS**

### **WLD 110 - Introduction to Welding (6.0)**

This course offers an introduction to safety practices and procedures that will be most commonly adhered to in the welding industry. Safety considerations will include proper clothing, eye protection, and workplace hazards. Students will be required to complete the OSHA 10 web-based training and web certification course. Students gain a basic understanding of the common welding procedures and terminology used such as oxyfuel, shielded metal arc welding, gas metal arc welding, flux core arc welding, and gas tungsten arc welding. Students learn to identify different metal types, gain a basic understanding of metallurgy and develop a higher understanding of mechanical property changes.

### **WLD 112 - Introduction to Print Reading (6.5)**

This course offers an introduction to CAD software and blueprint designs. Students will develop the ability to interpret lines, dimensions and notes used on blueprints in the welding and fabrication trades. Mathematic fundamentals are applied to welding in the forms of cost estimation, angular measurement, geometric computation, and number conversions.

### **WLD 114 - Cutting, Gouging & Torch Techniques (8.0)**

This course covers manual, semi-automatic, and CNC cutting operations such as oxyfuel, plasma, and carbon-arc cutting/gouging. Students will also develop skills using band saws, iron workers, and related metal working equipment.

### **WLD 121 - Gas Metal Arc Welding (10.0)**

Students receive introductory instruction regarding the process and theory of gas metal arc welding. Students will be exposed to related equipment, setup procedures, and safety requirements.

### **WLD 122 - Shielded Metal Arc & Pipe Welding (10.0)**

Students receive introductory instruction regarding the process and theory of shielded metal arc welding. Students will be exposed to the related equipment, setup procedures, and safety requirements. During this course students will also be introduced to the fundamentals and practices of pipe welding.

### **WLD 130 - Flux Cored Arc Welding (10.0)**

In this course, students will gain an understanding of the flux cored arc welding process and related variables. Students will demonstrate the ability to make various fillet and groove welds as well as define the operational differences between the two main types of flux cored electrodes.

### **WLD 131 - Gas Tungsten Arc Welding (10.0)**

Students will be able to apply the correct selection of tungsten, polarity, gas, and proper filler rod. They will perform fillet and groove welds with various electrodes and filler materials on steel, stainless steel, and aluminum.

### **WLD 140 - Fabrication Techniques (8.0)**

During this course students will work with CAD software to design projects. Students will then perform these hands-on welding projects using specified processes referenced in WPS. During these projects students will learn to overcome fit-up problems, control warp age/distortion and other tolerance controls problems.

### **WLD 142 E - Externship (4.0)**

Students will gain field experience under an externship agreement with Perry Technical Institute, the employer, and the student. Completion of the externship packet is required. If the student does not obtain an externship, completion of a capstone project is required.

### **WLD 143 - AWS/WABO Certification Prep Course (4.5)**

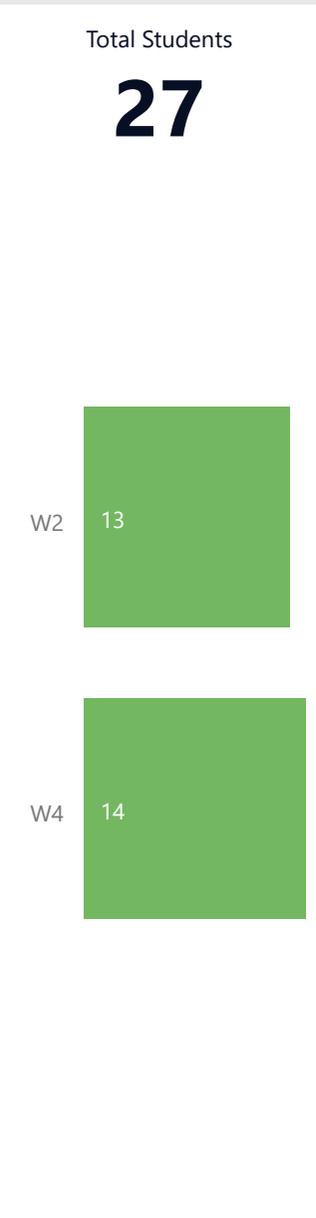
This course prepares students to sit for the American Welding Society (AWS) and Washington Association of Building Officials (WABO) welding certification tests. Students will receive review instruction in the classroom and lab environments.

# Current Demographics

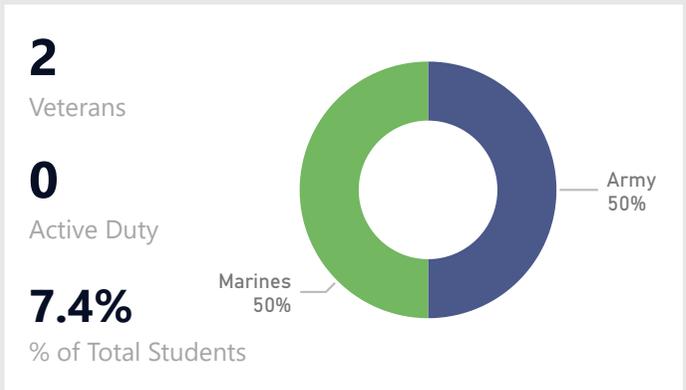
Teri Gardner 8-27-2020



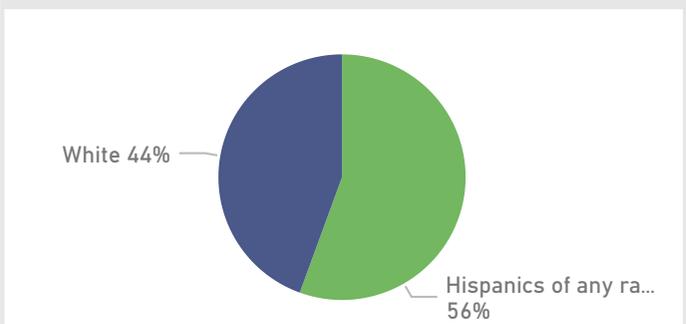
## Enrollment



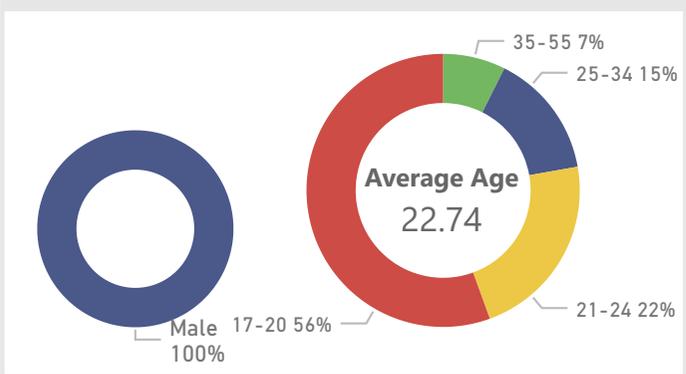
## Military History



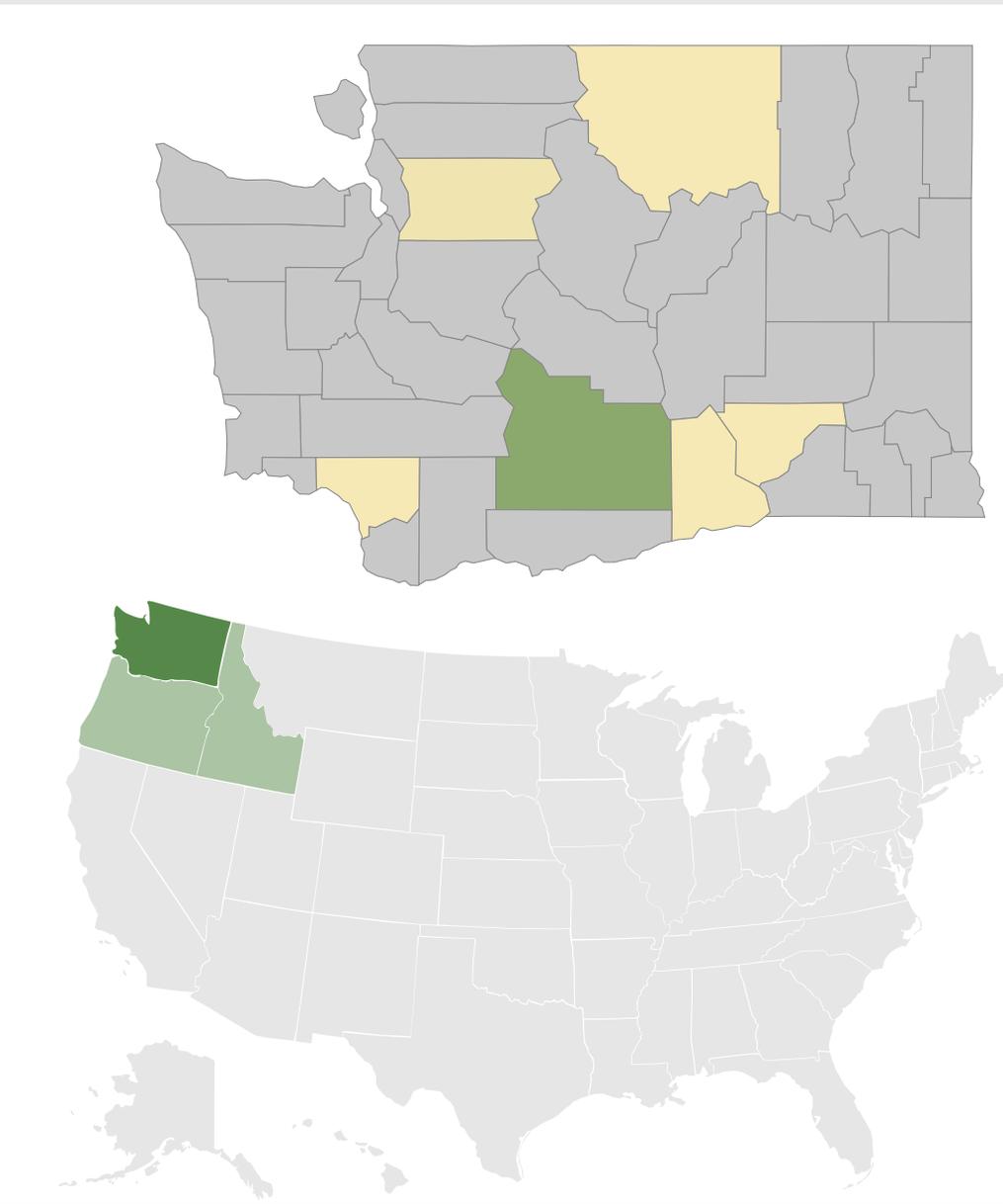
## Ethnicity



## Gender and Age



## Geographic Location (Based on High School)



| High School                     | # | %     |
|---------------------------------|---|-------|
| Grandview High School           | 4 | 14.8% |
| Dwight D Eisenhower High S...   | 3 | 11.1% |
| GED - General Equivalency D...  | 2 | 7.4%  |
| Zillah High School              | 2 | 7.4%  |
| A C Davis High School - Yaki... | 1 | 3.7%  |
| Chiawana High School            | 1 | 3.7%  |
| East Valley High School - Yaki  | 1 | 3.7%  |
| Granger High School             | 1 | 3.7%  |
| Highland High School            | 1 | 3.7%  |
| Kelso High School               | 1 | 3.7%  |
| Lynnwood High School            | 1 | 3.7%  |
| Marysville-Pilchuck High Sch... | 1 | 3.7%  |
| Moscow Senior High School       | 1 | 3.7%  |
| Pendleton High School           | 1 | 3.7%  |
| River's Edge High School        | 1 | 3.7%  |
| Selah High School               | 1 | 3.7%  |
| Sunnyside High School - Wa...   | 1 | 3.7%  |
| Tonasket High School            | 1 | 3.7%  |
| Toppenish High School           | 1 | 3.7%  |
| Wapato Senior High School       | 1 | 3.7%  |

This report is designed to reflect the demographics of the current student population. Please contact the Institutional Effectiveness Department with any questions.



PACIFIC NORTHWEST IRONWORKERS AND EMPLOYERS  
APPRENTICESHIP & TRAINING COMMITTEES

*Teri Gardner 8-27-2020*

February 11, 2020

Diana Aguilar  
Welding Technology, Lab Coordination  
Perry Technical Institute  
2011 W. Washington Ave.  
Yakima, WA 98903

Ms Aguilar,

We are interested in furthering the relationship of support between our apprenticeship program and your outreach and educational training with Perry Technical Institute. I believe from the interactions we have already had with your students, through the "hands on tours" of our facilities and the applicants that you have helped to realize their goal of becoming an ironworker, that it would be beneficial for all to include your program within the following segments of our Standards of Apprenticeship so that we may give your students consideration on their applications for completing your program.

Under Selection procedures:

*Consideration for Veterans, those referred through Helmets to Hardhats, participants in the National Ironworkers Training Program for American Indians, and graduates or participants of pre-apprenticeship programs is included in the scoring (written verification of these circumstances must be provided at the time of application.)*

We would also like to include your program under our Equal Employment Opportunity Plan:

*Engage with and participate in existing outreach programs whose focus is to recruit and prepare minority and women (minority and non-minority) students for apprenticeship such as ANEW and PACT, and other organizations working directly with women (minority and non-minority) in educational and skill development for entry into apprenticeship such as TRAC.*

Please contact me via email [jack@iw86appr.org](mailto:jack@iw86appr.org) or by phone 206-586-2311 if needed, as I would be pleased to offer you any assistance in achieving support for your program.

Sincerely,

Jack Laher, Coordinator  
Pacific Northwest Ironworkers &  
Employers Joint Apprenticeship  
Training Committee #86

JL/alc  
opeiu8

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