
Docket Item: 4.6 - CONSENT ITEM: Portland Community College: Maritime Welding,
Certificate of Completion

Summary:

Portland Community College proposes a new two-year certificate of completion in Maritime Welding. Higher Education Coordinating Commission (HECC) staff completed a review of the proposed program. After analysis, HECC staff recommends approval of the certificate as proposed.

Staff Recommendation:

The HECC recommends the adoption of the following program: Portland Community College CC2 in Maritime Welding.

Recommended Motion:

Move to approve the following certificate: Portland Community College CC2 in Maritime Welding.



Portland Community College seeks the Oregon Higher Education Coordinating Commission's approval to offer an instructional program leading to a two-year certificate of completion in Maritime Welding.

Program Summary

The Future Ready Oregon Career Pathways grant funded curriculum development for 3 new Maritime Welding Career Pathways Certificates (Maritime Aluminum Welding and Ship Fitting, Maritime Pipe Welding, and Maritime Pipe Fitting) along with this 2-Year certificate. This certificate holds all 5 of the Maritime Welding Less Than One-Year Career Pathway Certificates along with courses that teach skills industry representatives identified as important for students seeking entry-level lead or supervisory positions. Students can take one certificate at a time along with the supervisory development courses. Industry representatives contributed to the design of the certificate. This certificate was approved by the Welding Advisory Committee. Demand for entry-level positions in welding, particularly maritime welding, are in higher demand than many positions and occupations in the Portland metropolitan area. There is projected growth over 10 years of 15.6% in this occupation. Average hourly wage is \$26.00 or \$54,067 annually.

1. *Describe the need for this program by providing clear evidence.*

Standard A – Need: Cities with shipyards, like Portland, need maritime welders. Essentially, a healthy shipyard is a healthy city. The American Welding Society is projecting a large need for welder fabricators with specialized areas: ? 360,000 new welding professionals will be needed by 2027. ? 90,000 average welding jobs will need to be filled annually between 2023 and 2027. The median hourly wage for welders is \$24.64, with a 10 year growth projection of 15.2%. Both of these projections are higher when looking at specialized welding sectors, like maritime welding. A new pathway is needed to not only “brand” this program, but it will allow the Welding Department to obtain critical data from PCC’s Institutional Research department, apply for Perkins funding, and other national / state led funding and support opportunities. Lastly, due to the alignment of the programs, employment, and design, some of the information presented in this application will also be in subsequent Maritime Welding program applications.

2. *Does the community college utilize systemic methods for meaningful and ongoing involvement of the appropriate constituencies?*

Standard B – Collaboration: Vigor, Diversified Marine, Rogue Community College, California Welding Institute and South Seattle Community College are the prime constituents as of now. We have met with them and discussed plans to grow this program by making it an official state sanctioned program and developing curriculum specifically to prepare students for successful gainful employment. Local and

HIGHER EDUCATION COORDINATING COMMISSION

April 11, 2024

Docket Item #4.6

Regional industry representatives will serve on our Welding Advisory Board. It is planned to meet quarterly, depending upon needs of the program and industry partners. Currently, Vigor Industrial is leasing shop/and classroom space at PCC and are hiring our students. We are also working with Diversified Marine, another local shipyard, and they are interested in hiring graduates specifically from our Maritime program(s). This in conjunction with all the other local complex fabrication shops will lead to steady employment for our completers/graduates. Internally, we are working with the Welding Subject Area Committee (SAC), Oregon Manufacturing Innovation Center (OMIC), and Career Pathways Oregon. Nationally, PCC has been awarded a Maritime Center of Excellence designation allowing us to participate in seminars, networking events and the like. This program will provide a highly trained workforce that will be able to “hit the ground running” once employed. Industry partners will have access to our shop to observe our students progress. This will allow them to give their input on how the college is delivering the critical skills to be successful in shipyards across America.

3. ***Is the community college program aligned with appropriate education, workforce development, and economic development programs?***

Standard C – Alignment: PCC meets with Vigor on a regular basis and has developed an anecdotal task analysis. This has led to the desire to provide for a more streamlined curriculum approach to training students. The design and packaging of the curriculum will also allow the students to take classes at any of our locations. The Maritime program could lead to students enrolling in additional Welding, Machining or CADD classes at PCC. PCC currently articulates WLD 111, WLD 112 and WLD 131 with several of the local high schools through the Portland Area Career and Technical Education Consortium (PACTEC). This program meets federal and State objectives and priorities by ending recidivism through education and job placement, by working with second chance individuals and aligning them with companies that are second chance friendly. The Maritime program will support Statewide Education Initiatives by providing access to education that will lead to a livable wage. This work will align with the Oregon Department of Education aimed at improving educational opportunities for Oregon students, especially historically underserved student groups. PCC will reach out to underserved populations and provide a pathway. Students in this program will be able to earn multiple welding certifications, allowing them to be eligible for a variety of maritime jobs ranging from rapid response emergency repair specialist to new construction to ship repair. Certifications available to Maritime Welding graduates include: American Bureau of Shipping (ABS), American Welding Society (AWS), and Naval Sea Systems Command (NAVSEA). In addition to welding certifications, the students will receive additional industrial recognized certifications (IRCs) including: Fire Watch, OSHA 10, Fork lift, Rigging, Confined Space Training and First Aid.

4. ***Does the community college program lead to student achievement of academic and technical knowledge, skills, and related proficiencies?***

Standard D – Design: PCC used a backwards design process, specifically a DACUM (Developing a

Curriculum), to analyze community and industry needs. Over the course of many hours, industry experts took part in this development process, backwards mapping industry needs to course outcomes and program development. Four specific area needs we identified, which resulted in the 4 program application being reviewed today. Each certificate meets a particular need identified during the backwards design process, but they also have the ability to be “stacked”, allowing the student to gain additional awards, including the experience necessary to move into management. Due to the alignment and “Stackable” nature of these awards, after completing the first three course sequence, students will have the opportunity to test for their first welding certification. If they pass this test, it will put them in a position to be employable if the need arises in the shipyard. Otherwise, they can stay enrolled in school and earn the second Career Pathway Certificate which focuses on advanced welding skills and complex fabrication.

5. ***Does the community college identify and have the resources to develop, implement, and sustain the program?***

Standard E – Capacity: PCC currently has the capacity and funding available to support any expansion this program may bring about. With our close industry partners, we have many supplies and tools at our disposal. Additionally, our existing faculty are highly qualified maritime welders, so no new faculty or administrative support is needed.

Assurances

Portland Community College has met or will meet the four institutional assurances required for program application.

1. *Access.* The college and program will affirmatively provide access, accommodations, flexibility, and additional/supplemental services for special populations and protected classes of students.
2. *Continuous Improvement.* The college has assessment, evaluation, feedback, and continuous improvement processes or systems in place. For the proposed program, there will be opportunities for input from and concerning the instructor(s), students, employers, and other partners/stakeholders. Program need and labor market information will be periodically re-evaluated and changes will be requested as needed.
3. *Adverse impact and detrimental duplication.* The college will follow all current laws, rules, and procedures and has made good faith efforts to avoid or resolve adverse *intersegmental* and *intrasemental* impact and detrimental duplication problems with other relevant programs or institutions.
4. *Program records maintenance and congruence.* The college acknowledges that the records concerning the program title, curriculum, CIP code, credit hours, etc. maintained by the Office are the official records and it is the college’s responsibility to keep their records aligned with those of the Office. The college will not make changes to the program without informing and/or receiving approval from the Office.