CAREER CONNECT WASHINGTON
CAREER LAUNCH

Career Launch Endorsement Review (CLER) Post-Secondary Application

COMMUNITY AND TECHNICAL COLLEGES
Washington State Board

INSTITUTION _____Centralia College_____

PROPOSED PROGRAM _____Welding Technology_____

PROGRAM LEVEL (CHECK ALL THAT APPLY):
___College Certificate
_X_College Associate Degree
___College Bachelor Degree
_X_ Industry Recognized Certificate(s)

PROGRAM CIP____48.0508_____ PROGRAM NAICS CODE___333992_____

COMMUNITY AND TECHNICAL COLLEGES ONLY:
PROGRAM EPC (Legacy)__814____PLAN CODE (PeopleSoft)_____

CONTACT INFORMATION

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Joyce D. Hammer

12/30/2021

Chief Academic Officer

Date

Application contact:

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Associate Director, College Relations and Policy Guidance
Washington State Board for Community and Technical Colleges
Office: 360-704-4397
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Applications reviewed monthly and are due the first business day of the month.

Electronic submissions only to scopeland@sbctc.edu

Introduction

The Career Launch Program Endorsement recognizes high-quality career connected learning opportunities addressing persistent educational opportunity gaps, meeting the talent needs of employers and leading to academic learning and building awareness of, exposure to, and preparation for career opportunities.

Application Materials

The following checklists outline the specific requirements for a CLER application. Additional evidence (e.g. existing program outcomes) may be submitted with your checklist responses.

Please note the following:

- Respond completely to the following three (3) checklists in your submission packet.
- Page limit: 20 pages, including letters of endorsement and letters of employer partners.
- Registered Apprenticeships are automatically Career Launch endorsed. No application required.
- Submit your completed application to Scott Copeland at scopeland@sbctc.edu.

Program Checklist

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

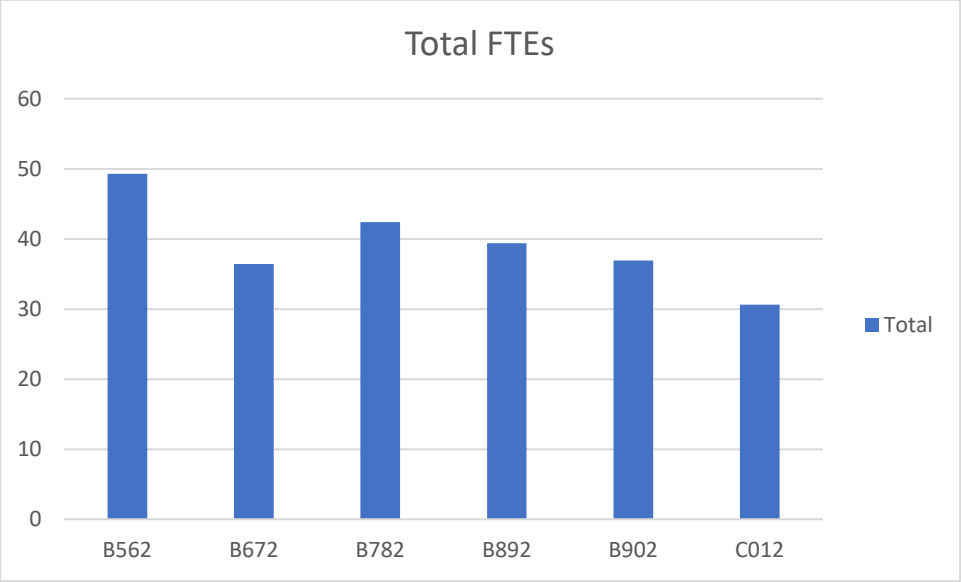
Centralia College is excited to seek Career Launch approval for the Welding Technology Program. This long-standing program has been a staple in the Industrial Trades area, providing students with a stellar education in welding skills. Welding technician jobs exist in nearly all manufacturing, construction, repair, and processing industries. As infrastructure ages throughout the country, demand for welders is expected to continue to grow.

This year, for the first time the industrial trades programs are trying a common first year for students, to allow them a better understanding of the four programs that students can go into – Diesel Tech, Welding Tech, Energy Tech, and Electronics, Robotics, & Automation. The second year Welding Technology students will be entirely focused on welding skill and will have an internship opportunity in each quarter.

The program has traditionally enrolled a solid number of FTE students each quarter, and the program has been well-enrolled over time, with the exception of fall 2020 (during the pandemic). The program is currently limited by the number of welding stations in the lab and COVID restrictions.

Tables 1 & 2: Welding FTE enrollment over time

WELD Enrollment	
YRQ	FTEs
B562	49.3
B672	36.4
B782	42.4
B892	39.4
B902	36.9
C012	30.6
Grand Total	235



Centralia College currently offers three distinct credentials - a two-year associate degree and two shorter-term welding certificate programs. **The degree pathway is the Career Launch pathway.**

Pathway	Credits	Classroom hours	Lab hours
AAS Degree	90	450	1080 (or 730 plus 350 internship hours)
Certificate of Proficiency	78	330	1080
Certificate (evening program)	20		400

The Welding program prepares students for advanced welding skills in Flux Cored Arc Welding (FCAW), Gas Tungsten Arc Welding (GTAW), Gas Metal Arc Welding (GMAW), and Shielded Metal Arc Welding (SMAW or Stick) welding.

Students also have the opportunity to gain two Washington Association of Building Officials (WABO) Welding Certifications as part of the program. These industry-based certifications are valued by the local employers and the unions.

Students are required to pass a practice certification test in lab class, before taking the Washington Association of Building Officials (WABO) structural certification test. Typically, the students pass the exam at a very high rate:

School year
2018- 2019 WABO welding certification tests passed = 84% pass rate
2019-2020 WABO welding certification tests passed = 90% pass rate
2020- 2021 WABO welding certification tests passed = 94% pass rate

Centralia College continues to be one of the highest WABO certification testing houses in Western Washington.

The new component that makes this program ready for a Career Launch endorsement is the addition of a significant work-based learning opportunity to the program. During the second year of classes, students focus solely on welding. Each quarter has a 6 credit, 5 week class that teaches them all of the skills they need for a particular type of welding. The second half of the quarter, students take a 6 credit all-lab class in which they practice all the skills they learned in the first half. Students will have the option to do a paid internship for that second half of the quarter (in each of the three quarters), and to practice those skills at a job site. The internship will be optional, as not all the placements will be local and we can't assume all the students will have the resources to go to a worksite off campus. However, we hope to be able to accommodate any who would like to take advantage of this opportunity, and with two employers already signed on for it, we are optimistic that we will be able to.

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

Year 1 – Common First Year – Students will attend classes in Industrial Trades in the first year. This includes classes such as Industrial Safety, Mechanical Systems, Fluid Systems, and Electrical Systems, Print Reading; as well as the related instruction components of Human Relations, English 101 or a writing course, and embedded math skills. No hours at the worksite will be logged during this year.
Year 2 - Students obtaining their Associate in Applied Science degree in Welding Technology from Centralia College will be in the classroom during the first half of each quarter (fall, winter, and spring) and will have

the opportunity during the second half of the quarter to do a paid internship with one of our employers. The students will be able to work up to 18+ hours per week at the internships, depending upon the employer's need, and will be able to sign up for 1-6 credits per quarter of WELD 190, the Cooperative Work Experience class.
A student will earn credit for each internship they participate in, up to 18 credits toward the degree.

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

Table 1: Occupation Snapshot – Welding Demand in Centralia and the surrounding region (within a 45 minute drive of Centralia)

(Report from JobsEQ – Chmura – 9/9/21)

Occupation	Employment	Ave Mean wage	3 year employment change	Annual Demand *	Forecasted Annual Growth
Welders, Cutters, Brazers and Solderers	1,079	$53,300	24	133	0.9%
Welding Soldering and Brazing Machine Setters, Operators and Tenders	39	$41,500	-6	4	0.2%
Total for occupation	**1,118**	**$52,900**	**18**	**137**	**0.9%**

*Annual Demand is the projected need for new entrants into the occupation to cover growth and replace workers leaving or retiring.

While there is not a lot of growth expected through 2028, the annual demand for welders is expected to remain steady in the region. The projected Annual Demand of 137 positions per year is covered by Centralia College's programs, as well as by welding programs at South Puget Sound and Lower Columbia Colleges. Even so, the annual demand is projected to be higher than the number of graduates from all three programs, leaving room for expansion and growth. This is reinforced by what our employers are telling us about the difficulty with finding qualified welders for their companies. One of our employers shared that they would hire 6 more welders right now if they had qualified candidates.

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

Year	Anticipated Enrollment	Anticipated Completion	Employer Participation	Notes
1	18	15	2 employers	We have applied for High Demand dollars to do a lab expansion that would add 8 welding booths.
2	24	20	3 employers	Employers may opt to take students for 1 or more quarters.
3	30	25	5 employers	We will continue to work to build employer capacity for interns.
4	30	25	5 employers	
5	30	25	6 employers	

Concise description of development process to create the Career Launch program (e.g. who was involved, when, how was the program piloted, etc.). Include a listing of program advisory committee members and their affiliation to the program.

The first meeting regarding Centralia College's career launch was on September 3, 2019 and was comprised of:

- Joyce Hammer – Vice President of Instruction
- Jake Fay – Dean of Instruction; Industrial and Healthcare
- Connie Smejkal – Dean of Instruction; Business, Education and Family Development
- Kelli Bloomstrom – Dean of Instruction; Transitional Studies & CC East
- Monica Brummer – Program Coordinator; Financial Aid
- Katie Aden – Career and Technical Education Navigator

The Career Launch program was developed through an intensive look at programs who meet specific needs for our community as well as outlook of labor market trends that maintain steady employment and/or continued growth. Communication with local industry employers as well as faculty was a fundamental outcome to gaining partnership for Career Launch students and maintain sustainability for future students in years to come. Conversations were struck up with the local school districts (Centralia and Chehalis) as well as their foundations to explain and inform the need as well as benefits of Career Launch Programs. It was vital to inform the community about what Centralia College is planning to implement. Collaboration was made with directors of funding sources from WorkFirst, WorkSource, and BFET to gain feedback on insight from their perspective.

This first meeting identified the Career Launch possibilities, and the college has continued to work on developing pathways that were identified in that initial meeting. Diesel Tech and Business were the first Career Launch pathways.

Conversation turned again to Welding in the spring of 2021, starting with the Dean of Instruction; Industrial and Healthcare; the Interim Director of Program Development, and the two full-time Welding faculty members. Once the desire to pursue this pathway was established, we began investigating the viability in the labor market data and exploring where the internships would be in the student's pathway. Once this was drafted, the faculty reached out to industry members to gauge their interest in offering paid internships, and six employers responded positively on the first outreach.

The Welding Advisory Committee

First	Last	Affiliation
Troy	Slator	Local 66 Sheet Metal Workers
Jayson	Starr	Local 196 Pile Drivers
Donny	McMahon	RHD Enterprises
Patricia	Mcmahan	Pacific Welding
Chris	Chitwood	Local 302 Operating Engineers
Ed	Day	Local 86 Ironworkers
Seth	Thompson	Local 26 Pipefitters

Additionally, we met individually with employers who were interested in hearing more about internships. To date we've been able to pin down two employers with internship opportunities.

Company	Name	Outcome
Lionell Anderson	Anderson's Fabrication	3-4 internships identified
Derrick Moyer	Global Metal Works	2-6 internships identified

We have collaborated with our regional intermediary (ESD 113) and they are well aware and supportive of our efforts and ideas to expand our welding capacity. Signed letter of endorsement from all relevant partners, stakeholders and regional networks (including employers, labor organizations, academic institutions, community-based organizations, individuals, and other relevant stakeholders in support of the proposed Career Launch program). Regional network endorsement preferred.

Letters start on the next page.

Anderson's Fabrication Inc.
520 North Gold Street
Centralia, WA 98531

September 29, 2021

Dear Career Launch Review Team:

We were approached by Centralia College about a new Career Launch program in Welding, to see if we were interested in providing some paid internships for students in the Welding Technology Program. Our company is absolutely on board with this idea. Finding quality welders has been very difficult and we will be pleased to have access to students who are interested in the field.

Anderson's Fabrication Inc (AF) was established May 1st 2001 by Connie and Lionell Anderson, and is intended to be a legacy company. AF specializes in manufacturing metal parts for other manufacturers of the Automotive Aftermarket, Mass Transit, Marine, Agricultural and other industries. AF works in Carbon Steel, Stainless Steel and Aluminum Alloys. AF can cut, fold. and weld up to 1" in thickness in any of these metals. All of our welders are WABO Certified. Currently we employ 32 persons of which 5 are titled as welders.

We are willing to say that we could host 3-4 interns during the year, as a best guess at this time. We know that you understand this number could change due to economic circumstances. Students who come to work with us will be paid and will work with someone on our crew to ensure they are supervised while they learn.

We see this opportunity as a win-win for us and for the students. Please approve the Welding Technology Program as a Career Launch Program.

Thank you,

Lionell & Connie Anderson, President and Vice President.

Global Metal Works & Erectors, Inc.

1144 Thorne Rd

Tacoma, WA 98421

11/16/21

Dear Career Launch Review Team:

We were approached by Centralia College about a new Career Launch program in Welding to see if we were interested in providing some paid internships for students in the Welding Technology Program. Our company is absolutely on board with this idea. Finding quality welders has been very difficult and we will be pleased to have access to students who are interested in the Trade.

Global Metal Works & Erectors custom fabricates and installs stairs, railings, fences and gates out of steel, aluminum, cable or stainless. We also fabricate and install structural steel, landings and other miscellaneous metal items. Our work area is a 70 mile radius from our Shop location in Tacoma.

We are willing to say that we could host at least 4 interns during the year as a best guess at this time. We know that you understand this number could change due to economic circumstances. Students who come to work with us will be paid and will work with someone on our crews to ensure they are supervised while they learn.

We see this opportunity as a win-win for us and for the students. Please approve the Welding Technology Program as a Career Launch Program.

Thank you,

Shannon Wells

President

D*escription 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.*

Centralia College has a position called the Career and Technical Education Navigator. This role for the college serves as a primary point of contact for K-12 partners and industry partners to facilitate guided pathway guidance for CTE students from high school to college and to the workplace. Developing relations with and collaborating with K-12 partners to facilitate dual credit opportunities for students will ensure the community is gaining knowledge and encourage students to get a jump start on CTE & Career Launch Programs. The CTE Navigator will coordinate field trips for K-12 students to come to campus, participate in hands-on activities, and meet program faculty.

Continuing to develop relationships with local industry and advisory boards to determine employer workforce needs will be key in ensuring this career launch program stays up to industry standards and students are well prepared for the workforce. The navigator position is the first point of contact for student assistance in locating school resources, monitoring progress and connecting students with industry.

In addition to the Career and Technical Education Navigator position, other recruitment strategies are:

- Financial Aid holds and FAFSA Fridays in addition to visiting local high schools to promote financial aid;
- Informational materials in Spanish about program/class offerings for ELL students and families;
- Outreach to College Bound students;
- Outreach to students that have applied for Financial Aid with incomplete files;
- Representatives from Financial Aid travel to Centralia College East to answer general admission questions, promote BFET, WorkFirst and Opportunity Grant, and to aid in completion of FAFSAs.

Further Resources and Support and Centralia College:

- BFET (Basic Food Employment and Training) funding;
- Instructional Techs hired to work with ELL students;
- Opportunity Grant funding;
- TRiO (Student Support Services, Talent Search, and Upward Bound);
- Veterans Gap Funding (helps recently release veterans with funding before their Veterans Administration Educational Benefits become active);
- Veterans, and eligible spouses and dependents and some students with disabilities are authorized to register during Early Registration.
- Outreach to Passport students

Industry-Related Checklist

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

Anderson's Fabrication http://andersonsfabrication.com/	520 N Gold St, Centralia, WA 98531
Global Metal Works https://www.globalmwe.com/	1144 Thorne Road, Tacoma, WA 98421

I-R2. Hourly wage rate or stipend (total stipend must cover the total number of hours worked divided by no less than the state minimum hourly rate) for Career Launch participants.

The employers have indicated they will hire interns between $16.00 and $20.00 per hour, depending upon their skill level and where they are in the program.

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

During the program:

Shop Hand Trainee – A relatively unskilled worker who assists a skilled welder usually with manual labor. Trainees may bring and put away tools, clean the shop or the worksite, and help with heavy lifting.

Shop Hand/Helper – helps with set up and clean up, doing manual labor and may perform some tasks with tools, such as cutting and grinding.

During and after the program:

Welder – Someone who uses an understanding of metallurgy to join metal using heat and/or pressure and one or many welding techniques such as Gas Metal Arc Welding (GMAW) or Flux Core Arc Welding (FCAW). May be working in a shop or in the field.

Welder/Fabricator – As well as welding, a fabricator designs metal solutions and troubleshoots problems in the field.

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.*

A. Follow industry safety practices and recognize the effects of welding on health.
B. Set-up and adjust SMAW, GMAW, FCAW, GTAW and oxy-fuel equipment and accessories.
C. Apply principles of welding design practices to welding fabrication and inspection.
D. Identify and make repairs to finished welds.
E. Interpret information on welding blueprints.
F. Apply principals of Metallurgy to welding fabrication and inspection.
G. Develop basic computer-aided drafting skills.
H. Perform 3-G and 4-G AWS/WABO welding code qualification tests.

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

Each employer has expressed that their shops are in compliance with all regulations and requirements in an attestation document kept on file at the College.

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

Each employer has offered a system of mentoring and supervision that includes working directly with an experienced crew member and having a team lead checking in on them. Students will be shown how to do the particular job properly, and then will be supervised until the student is confidently doing the job correctly.

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

Job	Pay	Time to next step
Shop Hand Trainee	$16.00-17.00/hour	With education; 9-12 months. Without, 12-24 months
Welder	$19.00-25.00/hour	Depends upon skill development and desire of the employee (industry certifications are sometimes an automatic raise)
Fabricator	$22-$28/hour	This could be the top job in this career path; or someone could go into management at any time
Lead welder/fabricator	$26-$30+/hour	This could be the top job in this career path, or the person could begin working independently.

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

Employers were asked what skills a student would need to succeed in an internship. Each employer emphasized the need for basic safety training, a basic understanding of reading welding blueprints, and soft skills such as reliability, work ethic, and ability to work in teams in addition to some welding skill. These skills are taught before the students become eligible for a Career Launch internship.

I-*R9. Signed letter from employers 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.*

Employers were walked through a questionnaire during the meeting and the completed questionnaires are kept on file at the college. One of the interviewees shared that his company would hire 5 welders right now if they could find qualified candidates.

Employer	# of interns	# of hires in the next 3 years
Anderson Fabrication	3-4 per year	4
Global Metal Works	2-6 per year	6 new

Academic-Related Checklist

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

Centralia College

600 Centralia College Blvd

Centralia, WA 98531

Other colleges with welding programs:

Bates Technical College Bellingham Technical College Big Bend Community College Clark College Clover Park Technical College Columbia basin College Everett Community College Grays Harbor College Green River College Lake Washington Institute of Technology Lower Columbia College Olympic College Peninsula College Renton Technical College Skagit Valley College South Seattle College Spokane Community College Walla Walla Community College Wenatchee Valley College Yakima Valley College

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

The degree outcomes are directly in line with the identified competencies from employers and students are prepared to take some of the WABO industry certification exams. The degree outcomes are listed here:

Associate of Applied Science - Degree Outcomes:

A. Follow industry safety practices and recognize the effects of welding on health.

B. Set-up and adjust SMAW, GMAW, FCAW, GTAW and oxy-fuel equipment and accessories.

C. Apply principles of welding design practices to welding fabrication and inspection.

D. Identify and make repairs to finished welds.

E. Interpret information on welding blueprints.

F. Apply principals of Metallurgy to welding fabrication and inspection.

G. Develop basic computer-aided drafting skills.

H. Perform 3-G and 4-G AWS/WABO welding code qualification tests.

Course Descriptions:
WELD 161 – SMAW I - Introduction to shielded metal arc welding. Lab consists of safety, machine setup and operation, joint design, and electrode selection.

WELD 165 – Theory of Shield Metal Arc Welding - Theory of shielded metal arc welding. This class will cover safety, machine setup and operation, joint design, and electrode selection of the SMAW process as well as standards of certification and the certification process.
WELD 265 – SMAW II - Practice of advanced shielded metal arc welding (SMAW) to prepare for the Washington Association of Building Officials (WABO) certification tests on plate and pipe.
WELD 164 FCAW/GMAW I - Gas metal-arc welding (GMAW) and flux-cored arc welding (FCAW) safety, setup, operation and troubleshooting. Lab practice includes butt, lap, tee and corner joints in all positions.
WELD 267 FCAW/GMAW II - Advanced Gas metal Arc Welding (GMAW), and Flux Cored Arc Welding (FCAW), all position plate and pipe welding. This course prepares welders for WABO certification.
WELD 175 – Theory of wire feed processes - Theory of GMAW and FCAW (gas and self shielded). This class will cover safety, machine setup and operation, joint design, and electrode selection of the GMAW and FCAW processes as well as standards of certification and the certification process.
WELD 159 GTAW I - Theory and practice of oxyacetylene welding, brazing, cutting and gas tungsten arc welding. Safety, handling and use of compressed gases, materials, types of weld joints, and procedures.
WELD 259 GTAW II - Advanced Gas Tungsten Arc Welding (GTAW), all position plate and pipe welding. This course prepares welders for WABO certification.
WELD 195 – Theory of GTAW - Theory of the manual processes of GTAW and oxy-acetylene brazing. This class will cover safety, machine setup and operation, joint design, and electrode selection as well as standards of certification and the certification process.

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

Every student at Centralia College is paired with a faculty advisor to help them navigate their way through their educational paths. This is in addition to the before-mentioned Navigator on campus.

Centralia College has a magnitude of resources on campus including:

- Advising/Counseling Center: a critical piece of academic success and finishing a degree or certificate efficiently. Advisors can help you choose classes, navigate college life, and provide critical support during your education.
- Disability Services: for students with disabilities, CC offers support services to help you access programs and services.
- Blazer Central: a student resource and success hub. It is a relaxed and supportive study and collaboration space that offers programming that promotes student success.
- Food Pantry: provide free food and personal care items to CC students experiencing food insecurity.
- Financial Aid (types of aid): Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, Washington State Passport to Careers, Washington State Need Grant, Federal and State Work-Study, Centralia College Foundation Scholarships.
- Worker Retraining Program: assist with tuition, fees, books, and supplies for those who qualify.
- WorkFirst Program: covers the cost of tuition and books for eligible students.
- Basic Food Employment and Training (BFET) Program: partnership between Centralia College and the Department of Social Services (DSHS).
- Programs for Children and Families • Student Life

• TRiO Programs: provide equal opportunity for all Americans regardless of race, ethnic background, or economic circumstances.
• Student Support Services: aid first-generation, economically disadvantaged, and students with disabilities to stay in college and/or transfer to a four year and earn their bachelor's degree.
• Veteran and Military Resources: veteran's admission, veteran's center, resources for veterans.

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

AAS Degree: 90 credits

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

The curriculum has been approved by the college Curriculum Review Committee and encompasses the appropriate related instruction in communication, computation, and human relations. It has been designed with input from the Advisory Committee to prepare students to take two WABO (Washington Association of Building Officials) exams. The past WABO testing pass rates are evidence that this curricular alignment is good.

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.

We believe that once the word gets out about this Career Launch program, more employers will sign on for interns. It takes time and concentrated effort with each employer to get them to understand the program and sign on – but each employer who took the time with us did sign on to be a Career Launch site. The difficulty has been in meeting with employers in person during the pandemic.
Attracting qualified welding candidates can be difficult, particularly for smaller employers. Taking an intern will allow them to showcase their business to a potential employee, as well as help them with current labor shortages.
excited to turn in this application and to anticipate approval as a Career Launch program.

End of Application