



OREGON COAST
COMMUNITY COLLEGE

April 14, 2021

To: OCCC Board of Education
From: Dan Lara, Vice President of Academic Affairs
RE: Agenda Item E. d-h

Request adoption of the following:

- Less than One Year (LTOY) Certificate of Completion (CC): Shipbuilding and Repair Level II
- Less than One Year (LTOY) Certificate of Completion (CCR₀): Shielded Metal Arc Welding Level I
- Less than One Year (LTOY) Certificate of Completion (CCR₀): Shielded Metal Arc Welding Level II
- Less than One Year (LTOY) Certificate of Completion (CCR₀): Wire Feed Welding
- Less than One Year (LTOY) Certificate of Completion (CCR₀): Introduction to Shipbuilding and Repair Level I

Justification

According to the American Welding Society, retirements in the welding workforce will result in a shortage of 400,000 welders by 2024. While a number of manufacturing programs exist at rural high schools along the Oregon Coast, access to training and testing for high school students leading to industry-recognized credentials is limited. While this poses significant challenges to rural CTE students in Lincoln County seeking to obtain industry-recognized credentials, the challenge is not unique to this county. Rural students throughout coastal Oregon have extremely limited access to post-secondary certificates in the industrial trades and to industry recognized credentials.

In 2019, Oregon Coast Community College (OCCC) and Lincoln County School District (LCSD) partnered with the Port of Toledo to create a Welding Training Lab at the Port of Toledo Shipyard. Additionally, a smaller facility was developed at Taft High School in Lincoln City to serve students in the northern portion of the county. At that time, OCCC's curriculum was approved through a parallel curricular process at Portland Community College (PCC) and packaged into Certificates designed to meet Portland Metro Area training and workforce needs. With OCCC attaining independent accreditation in February 2020 and subsequently obtaining approval by the U.S. Department of Education to be eligible to offer Federal Financial Aid, the College now has the opportunity to tailor its curriculum to the local workforce and institutional capacity.

Together, the five proposed certificates allow the College to create a three-term sequence of offerings that develop entry-level skills in stick (SMAW) and wire feed (GMAW/FCAW) welding. SMAW is used in construction and manufacturing in environments ranging from indoors to ships out at sea. GMAW has a variety of applications ranging from small shops to major production facilities. FCAW is high-speed, portable, and well-suited to outdoor applications. All three forms of welding are suitable for applications in shipbuilding and repair.

Labor Market Data for Computer Science

Burning Glass identified 389 unique Job-Postings, across 71 employers, in the last 12 months across the three-county region of Linn, Benton and Lincoln Counties, with postings for individuals with less than an Associate Degree, starting at \$30k/year and ranging to as high as \$45k/year.

Sustainability Planning

The College anticipates needing one full-time faculty member in Welding and at least two part-time faculty to support the delivery of the Certificates each year. Currently, the College receives approximately \$80k/year in financial support from Lincoln County School District in exchange for 18 to 20 seats per term in Welding courses.

In 2019-20 and 2020-21, Welding courses were not yet approved for Financial Aid Eligibility. As such, a variety of third party funds (LCSD, Workforce Investment Funds, and Scholarships) were used to waive tuition and fees for students. With the College now approved to offer financial aid, and with the one-year waiting period nearing conclusion for seeking F/A eligibility for new programs, the College will begin charging tuition and fees to cover instructional costs when the program is F/A eligible.

As the county, state, and nation emerge from the pandemic, there is laser focus on workforce development initiatives. Recently, particular emphasis has been placed on building the capacity of coastal Oregon to support the Maritime Sector. While current resources and facilities allow the college to offer a three-term Certificate Program, the College is actively participating in securing grant funding for workforce development, which could further support and expand the Welding program. Until further program expansion is possible, students seeking additional training in pipefitting/steamfitting, fabrication, and advanced welding techniques can further their education at near-by Linn-Benton Community College.

Proposed Certificates

Less than One Year (LTOY) Certificate of Completion (CC): Shipbuilding and Repair Level II		
Course Number	Course Title	Credits
WLD 111	Shielded Metal Arc Welding (E7024) and Oxy-acetylene Cutting	4
WLD 112	Shielded Metal Arc Welding: Mild Steel I (E7018)	4
WLD 113	Shielded Metal Arc Welding: Mild Steel II (E7018)	4
WLD 114	Shielded Metal Arc Welding: Mild Steel III (E6011)	4
WLD 115	Shielded Metal Arc Welding: Mild Steel IV (E6011)	4
WLD 131	Gas Metal Arc Welding	4
WLD 141	Flux-Cored Arc Welding I (Gas Shielded)	4
WLD 151	SMAW Certification Practice: Unlimited Thickness Mild Steel	4
WLD 152	Flux Cored Arc Welding (Gas Shielded) Certification Practice	4
WLD 190A	Beginning Welding Practice	1
TOTAL CREDITS		37

Less than One Year (LTOY) Certificate of Completion (CC): Shipbuilding and Repair Level II

Course Number	Course Title	Credits
WLD 111	Shielded Metal Arc Welding (E7024) and Oxy-acetylene Cutting	4
WLD 112	Shielded Metal Arc Welding: Mild Steel I (E7018)	4
WLD 113	Shielded Metal Arc Welding: Mild Steel II (E7018)	4
TOTAL CREDITS		12

Less than One Year (LTOY) Certificate of Completion (CC): Shipbuilding and Repair Level II

Course Number	Course Title	Credits
WLD 114	Shielded Metal Arc Welding: Mild Steel III (E6011)	4
WLD 115	Shielded Metal Arc Welding: Mild Steel IV (E6011)	4
WLD 151	SMAW Certification Practice: Unlimited Thickness Mild Steel	4
TOTAL CREDITS		12

Less than One Year (LTOY) Certificate of Completion (CCR₀): Wire Feed Welding

Course Number	Course Title	Credits
WLD 131	Gas Metal Arc Welding	4
WLD 141	Flux-Cored Arc Welding I (Gas Shielded)	4
WLD 152	Flux Cored Arc Welding (Gas Shielded) Certification Practice	4
TOTAL CREDITS		12

Less than One Year (LTOY) Certificate of Completion (CCR₀): Introduction to Shipbuilding and Repair Level I

Course Number	Course Title	Credits
<i>WLD 111 or</i>	<i>Shielded Metal Arc Welding (E7024) and Oxy-acetylene Cutting</i>	<i>4 or</i>
<i>WLD 116A</i>	<i>Beginning Shielded Metal Arc Welding</i>	<i>3</i>
WLD 112	Shielded Metal Arc Welding: Mild Steel I (E7018)	4
WLD 141	Flux-Cored Arc Welding I (Gas Shielded)	4
WLD 190A	Beginning Welding Practice	1
TOTAL CREDITS		12 - 13