

**Welding
Curricular Approval Matrix (CAM)
Executive Summary
11/22/2021**

Project Rationale:

Upon the recommendation from the welding advisory board, student interest, and the receipt of two grants, program administration identified the need for additional courses and exit points within the welding program. According to the Kansas Labor Outlook Report, there will be a 6% increase in employment by 2026. Median salary being \$39,580.

Program of Study

- **New or Modified Existing Program (if modified, please explain proposed changes)**
 - The welding program will be modified from the original 16 credit hour certificate exit point. The new program will have three potential exit points, a 17 credit hour certificate, a 38 credit hour certificate, and an AAS degree. The two certificate levels are stackable and will be embedded within the AAS degree.

- **Program Description**
 - Through a variety of classroom, hands-on, and assessment activities Barton's welding program exposes students to the different types of joints, positions, blueprint symbols, and safety standards needed to excel in a career in welding.

- **Program Objectives**
 - Prepare students for industry credentials, OSHA 10, AWS Level I-II
 - Increase earning potential and career opportunities, by offering training in additional welding positions and techniques.
 - Supply employers with a well trained workforce.

- **Program Exit Points (SAPP, Certificate and/or Degree)**

Certificate (Total Credit Hours – 17)

REQUIREMENTS				
See Advisor for Transfer Information				
<input type="checkbox"/>	WELD	1349	Gas Tungsten Arc Welding	3
<input type="checkbox"/>	WELD	1350	Shielded Metal Arc Welding	3
<input type="checkbox"/>	WELD	1351	Gas Metal Arc Welding	3
<input type="checkbox"/>	WELD	1352	Cutting Processes	3
<input type="checkbox"/>	WELD	1353	Blueprint Reading	3
<input type="checkbox"/>	WELD	1354	Safety/Osha 10	1
<input type="checkbox"/>	WELD	1348	Introduction to Welding	1
<input type="checkbox"/>				
TOTAL				17

Certificate (Total Credit Hours – 38)

REQUIREMENTS				
See Advisor for Transfer Information				
<input type="checkbox"/>	WELD	1349	Gas Tungsten Arc Welding	3
<input type="checkbox"/>	WELD	1350	Shielded Metal Arc Welding	3
<input type="checkbox"/>	WELD	1351	Gas Metal Arc Welding	3
<input type="checkbox"/>	WELD	1352	Cutting Processes	3
<input type="checkbox"/>	WELD	1353	Blueprint Reading	3
<input type="checkbox"/>	WELD	1354	Safety/Osha 10	1
<input type="checkbox"/>	WELD	1361	Gas Metal Arc Welding II	3
<input type="checkbox"/>	WELD	1360	Shielded Metal Arc Welding II	3
<input type="checkbox"/>	WELD	1359	Gas Tungsten Arc Welding II	3
<input type="checkbox"/>	MATH	1806	Technical Math	3
<input type="checkbox"/>	BSTC	1036	Computer Concepts and Applications	3
<input type="checkbox"/>	BUSI	1800	Business Communications	3
<input type="checkbox"/>	COMM	1200/ 1230	Interpersonal Communication OR Public Speaking	3
<input type="checkbox"/>	WELD	1348	Introduction to Welding	1
<input type="checkbox"/>				
TOTAL				38

Welding Associate of Applied Science-64 Credit Hours

Zone 1: Foundation Courses			
Sector A: Written and Oral Communication			
<input type="checkbox"/>	COMM 1200 or COMM 1230	Interpersonal Communications or Public Speaking	3
Sector B: Mathematical Reasoning <i>See list of approved courses on page 3.</i>			
<input type="checkbox"/>	MATH 1806	Technical Math	3
Sector C: Technological Skills <i>See list of approved courses on page 3.</i>			
<input type="checkbox"/>	BSTC 1036	Computer Concepts and Applications	3
Sector D: Global Issues and Diversity* <i>See list of approved courses on page 3.</i>			
<input type="checkbox"/>			
Zone 2: Introductory Courses			
Sector A: Arts and Humanities <i>See list of approved courses on page 4.</i>			
<input type="checkbox"/>			
<input type="checkbox"/>			
Sector B: Social Sciences <i>See list of approved courses on page 6.</i>			
<input type="checkbox"/>			
<input type="checkbox"/>			
Sector C: Mathematics and Pure Science <i>Non-laboratory science can satisfy. See list of approved courses on page 7.</i>			
<input type="checkbox"/>	CHEM 1802	Fundamentals of General Chemistry	5
<input type="checkbox"/>			
Sector D: Personal Well-Being <i>Restricted to two credits in PHED or HLTH. See list of approved courses on page 8.</i>			
<input type="checkbox"/>	PHED 1246	First Aid	3
<input type="checkbox"/>			
Total			17

Zone 3: Emphasis Requirements and Electives			
Sector A: Emphasis Requirements			
<input type="checkbox"/>	WELD 1348	Introduction to Welding	1
<input type="checkbox"/>	WELD 1349	Gas Tungsten Welding	3
<input type="checkbox"/>	WELD 1350	Shielded Metal Arc Welding	3
<input type="checkbox"/>	WELD 1351	Gas Metal Arc Welding	3
<input type="checkbox"/>	WELD 1352	Cutting Processes	3
<input type="checkbox"/>	WELD 1353	Blueprint Reading	3
<input type="checkbox"/>	WELD 1354	Safety/OSHA 10	1
	WELD 1361	Gas Metal Arc Welding II	3
	WELD 1360	Shielded Metal Arc Welding II	3
	WELD 1359	Gas Tungsten Arc Welding II	3
	BUSI 1800	Business Communication	3
Sector B: Emphasis Electives			
<input type="checkbox"/>	WELD 1160	Welding Internship	1-4
<input type="checkbox"/>			
Sector C: Other Electives			
<input type="checkbox"/>	AGRI 1214	Commercial Driver's License-BTW	2
<input type="checkbox"/>	AGRI 1217	Commercial Driver's License-Theory	3
<input type="checkbox"/>	NATG 1135	Basic Corrosion	3
<input type="checkbox"/>	BUSI 1600	Introduction to Business	3
	ECON 1615	Personal Finance	3
	ACCT 1612	General Accounting	3
	NATG 1100 or WGHT 1104	DC Circuit Fundamentals	3
	NATG 1105 or WGHT 1105	AC Circuit Fundamentals	4
	OSHA 1913	Introduction to OSHA General Industry Standards	2.5
	OSHA 1924	Introduction to OSHA Construction Industry Standards	2.5
	HZMT 1919	Hazardous Waste Operations and Emergency Response (HAZWOPER)	3
Total			

- **Delivery Method**

- All courses will be delivered face to face, with an online option for blueprint reading class.

- **Facility Needs (if applicable)**

- With the closure of the automotive program, the welding program is able to double the size of their space. All expenses associated with converting the space to welding space has been paid for through the JIIST grant.

- **Length of Program Exit Points (# of Weeks)**
 - 17 credit hour certificate- one semester
 - 38 credit hour certificate- two to three semesters
 - AAS degree- 4 semesters
- **Program Location**
 - Barton County Campus
- **Faculty Needs**
 - Two full time faculty members
 - Two adjunct faculty members
 - Blueprint Reading (online)
 - OSHA 10/Safety (zoom from Grandview Plaza)
- **Third-Party Accreditation**
 - Currently offering OSHA 10 card
 - Level I AWS certification
 - Level II AWS certification will be offered with the expanded course offerings.
- **Partnerships**
 - Maico donates scrap metal.
 - Doonan Trailer donates scrap metal.
 - Great Plains Manufacturing donates scrap metal.

Resource Needs: All new equipment and shop upgrades will be purchased using funds awarded from the JIIST grant (\$190,938) and AWS grant (\$24,600)

Other Unique Features/Details: None

Projected Implementation Term: Fall 2022

Respectfully Submitted By:

Mary Foley, Executive Director of Workforce Training and Economic Development

Wade Morris, Welding Instructor/Coordinator

Dr. Kathy Kottas, Dean of Workforce Training and Community Education