





## **Program of Study: Welding Technology AAS**

Career Pathway: Skilled Trades Secondary Partner: **Program Name:** CIP: Program ID: Post-secondary Partner: Trinidad State College Program Name: Welding Technology Associate of Applied Science CIP: 48.0508 Program ID: AAS EPIW **Secondary Program Description:** Career and Technical Courses Possibilities of careers, and demand relating to this Pathway State Graduation Requirements: www.cde.state.co.us/postsecondary/graduationguidelines **Possibilities of Careers:** OSH 1310 10-Hr. Construction Industry Standards CE Welder, Fabricator, Finishing Technician, Fitter-Welder, Mig Welder, Robot Operator, Braze WEL 1002 Oxyacetylene Joining Processes CE Operator, Machine Operator, Spot Welder, Technical Associate (TA), Maintenance Welder, Sub Arc Oxyfuel and Plasma Cutting CE WEL 1013 Operator, Brazer, Solderer, Wirer, Assembly Line Brazer, Connector, Electronic Technician, WEL 1021 Structural Welding I CE Production Technician, Electrical Assembler, Fitter, Welder-Fabricator, Layout Man, Ship Fitter, WEL 1024 Gas Tungsten Arc Welding I High School/Secondary Weld Technician, Mill Beam Fitter, Structural Steel Fitter, Tack Welder WEL 1025 Introduction to Gas Metal Arc Welding CE, or WEL 2024 Gas Tungsten Arc Welding II CE **Employment Demand and Wage Data:** Basic Workplace Skills CE BUS 1021 Typical Wages for Welders, Cutters, Solderers, and Brazers (no data available for Welders, Cutters, WEL 1022 Structural Welding II CE and Welder Fitters) is \$49,370 Median Annual Wage in Colorado; \$47,540 across the U.S. Projected WEL 2003 Flux Cored Arc Welding I CE Job Openings are 42,600 and Projected Growth from 2022-2032 indicates little or no change. The WEL 2030 Pipe Welding I CE Employment Wage Statistics for this occupation in Colorado for 2022 was \$22.86 for entry level WEL 2031 Pipe Welding II CE hourly wage and \$32,077 for annual wage or salary. Experienced welders in Colorado for 2022 have WEL 1025 Introduction to Gas Metal Arc Welding CE, or average salary of \$72,800. WEL 2024 Gas Tungsten Arc Welding II CE Related Industry Certifications/Credential(s) offered through program: Work-based Learning offered through program: OSH 10-hour safety; program certificate Career Research Cooperative Education Job Shadowing **Advanced Credit Options Key:** CTSO organization(s): Notate above which course has an articulation agreement or concurrent enrollment. **AA** – Course is approved for Articulation Agreement □ DECA □ FBLA □ FCCLA □ FFA □ CCSA □ HOSA ☐ SkillsUSA **CE** – Course is offered as Concurrent Enrollment

POSTSECONDARY CREDENTIALS					
Certificate(s) offered through program:	Associate degree(s) offered through program:	Bachelor's Degree(s) program aligns to:	Advanced Degree(s) program aligns to:		
OSH 10-hour safety; program certificate	EPIC Welding EPIC Heavy Equipment EPIC Diesel Technology	Industrial Engineering Mechanical Engineering Civil Engineering	Engineering Management Industrial and Systems Engineering Mechanical Engineering		

## **Postsecondary Program Description:**

This two-year program is designed to prepare students for entry level employment in hand-welding or flame-cutting equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products.

## **Program Requirements for Entry:**

http://www.trinidadstate.edu/admissions

CTE Courses	General Education Courses			
Semester 1  OSH 1310 10-Hr. Construction Industry Standards  WEL 1002 Oxyacetylene Joining Processes  WEL 1013 Oxyfuel and Plasma Cutting	<ul> <li>Semester 3</li> <li>ENG 1015 Technical English and Communication, or ENG 1021 English Composition I: GT-CO1, or ENG 1020 Technical Writing I: GT-CO1</li> <li>MAT 1140 Career Math, or MAT 1240 Mathematics for Liberal Arts: GT-MA1, or MAT 1260</li> </ul>			
<ul> <li>WEL 1021 Structural Welding I</li> <li>WEL 1024 Gas Tungsten Arc Welding I</li> <li>WEL 1025 Introduction to Gas Metal Arc Welding, or WEL 2024 Gas Tungsten Arc Welding II</li> <li>Semester 2</li> </ul>	<ul> <li>Introduction to Statistics: GT-MA1, or MAT 1340 College Algebra: GT-MA1</li> <li>COM 1150 Public Speaking, or COM 1250 Interpersonal Communication: GT-SS3</li> <li>AGY 2140 Introductory Soil Science: GT-SC1, or ECO 2001 Principles of Macroeconomics: GT-SS1, or ENV 1111 Environmental Science with Lab: GT-SC1, or HIS 1220 US History since the Civil War:GT-HI1, or PHI 1012 Ethics: GT-AH3, or PSY 1001 General Psychology I: GT-SS3</li> </ul>			
<ul> <li>BUS 1021 Basic Workplace Skills</li> <li>WEL 1022 Structural Welding II</li> <li>WEL 2003 Flux Cored Arc Welding I</li> <li>WEL 2030 Pipe Welding I</li> <li>WEL 2031 Pipe Welding II</li> <li>WEL 1025 Introduction to Gas Metal Arc Welding, or WEL 2024 Gas Tungsten Arc Welding II</li> </ul>	<ul> <li>Semester 4</li> <li>AGY 2140 Introductory Soil Science: GT-SC1, or ECO 2001 Principles of Macroeconomics: GT-SS1, or ENV 1111 Environmental Science with Lab: GT-SC1, or HIS 1220 US History since the Civil War:GT-HI1, or PHI 1012 Ethics: GT-AH3, or PSY 1001 General Psychology I: GT-SS3</li> <li>BUS 1015 Introduction to Business, or CIS 1018 Intro to PC Applications, or DPM 1003 Diesel Engines I, or DPM 1005 Heavy Duty Powertrains I</li> <li>BUS 1015 Introduction to Business, or CIS 1018 Intro to PC Applications, or DPM 1006 Diesel Fuel Systems, or DPM 1021 Hydraulic Systems I, or</li> <li>BUS 1015 Introduction to Business, or CIS 1018 Intro to PC Applications, or DPM 2003 Diesel Engines II, or DPM 2005 Heavy Duty Powertrains II</li> </ul>			

## **District/College Review**

Secondary Partner			
Print Name:	Title:	Signature:	Date:
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Postsecondary Partner

Print Name: Title: Signature: Date: