

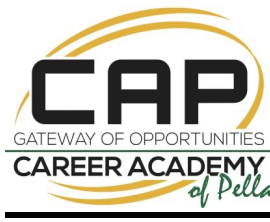
WELDING APPRENTICESHIP

Date: _____ Student's High School: _____

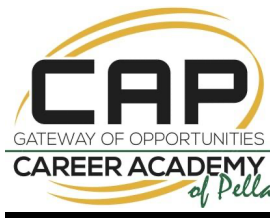
Student Name: _____

Counselor Signature: _____

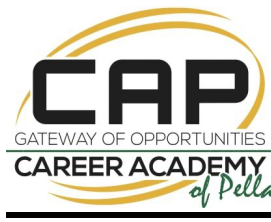
Academic Related Training & Instruction (RTI)		
Initial if completed	Required Classroom Training	Equivalent Course Name & school providing the skill training*
	<p>Power Tools <i>If student took this class at the Career Academy of Pella, initial at left and proceed to next highlighted class below. If not, please complete for each following skill:</i></p>	
	Use correctly and safely all hand tools (screwdrivers, chisels, mallets, files, rasps, pliers, clamps, vices and layout tools)	
	Use correctly and safely all power tools (Planer, Jointer, Table Saw, Miter, Saw/Compound Miter Saw, Band Saw, Drill Press, Router, Sanding Equipment, Cordless Tools-Drill and Impact Driver)	
	Measure accurately to a 16 th of an inch	
	Identify proper measuring instrument for the task	
	Use proper hand and power tools during assembly	
	Work as a team to help others assemble projects correctly when more hands are needed	
	<p>Welding 1 – Safety and Related Instruction <i>If student took this class at the Career Academy of Pella, initial at left and proceed to next highlighted class below. If not, please complete for each following skill:</i></p>	
	Safety Procedures and Practices	
	Job Safety Analysis Tests	
	Safety Videos <ul style="list-style-type: none"> ● Electric Shock ● Fumes and Gases ● Fire and Explosions ● MSDS - Material Safety Data Sheets 	
	Demonstrates how to draw orthographic top and side view	
	Demonstrate the appropriate use of standing and finishing processes	
	<p>Gas Metal Arc Welding – GMAW (Short Circuit)</p>	
	Introduction to Gas Metal Arc Welding	



	Safety and Health of Welders and Implement in class	
	Installation, Setup and Maintenance of Equipment	
	Seven Essentials of Welding	
	Quality of Welds - Discontinuities	
	Shielding Gases	
	Distortion Control	
	Surfacing Welds - Flat Position	
	Fillet Weld - T-joint & Lap - Horizontal Position (2F)	
	Fillet Weld - T-joint Vertical Up (3F)	
	Fillet Weld - T-joint Overhead (4F)	
	Square Groove Weld - Flat Position (1G)	
	Single V-Groove Weld - Flat position (1G)	
	Blueprint Reading for Welders and Fitters	
	Welding Symbols	
	Review of Mathematics : Fraction/Decimals/Conversions	
	Metrics and Conversions	
	Orthographic Views	
	Standard Drawing Lines and Symbols	
	Interpreting Blueprint Information	
	Surface and Center Line Relationships	
	Auxiliary Views	
	Scale Drawings	
	Dimensional Tolerance and Stock Allowance	
	Setup Tools	
	Setup Applications	
	Intro to Fabrication	
	<p>Teach safe use and how to operate all listed below</p> <ul style="list-style-type: none"> ● Bandsaw ● Plasma Cutter ● Oxy-Acetylene Cutting and Heating ● Iron Worker ● Drill Press ● Punch Press 	



	<ul style="list-style-type: none"> Grinder 	
	Review and discuss ASTM	
	Measuring Tools <ul style="list-style-type: none"> Calipers Micrometer Tape Measure 	
	Basic Lay-out <ul style="list-style-type: none"> Combination Square and Scribe Angle Protractor Produce Weldment from Blueprint 	
	Layout Parts in a Fixture	
	Welding 2 – Gas Metal Arc Welding – GMAW (Spray Transfer) <i>If student took this class at the Career Academy of Pella, initial at left and this form is complete. If not, please complete for each following skill:</i>	
	Introduction to Gas Metal Arc Welding	
	Safety and Health of Welders and Implement in class	
	Installation, Setup and Maintenance of Equipment	
	Fillet Weld - T-joint & Lap - Horizontal Position (2F)	
	Fillet Weld - T-joint Vertical (3F)	
	Fillet Weld - T-joint Overhead (4F)	
	Triple Pass Weld – 2f	
	Square Groove Weld - Flat Position (1G)	
	Square Groove Weld - Horizontal (2G)	
	Square Groove Weld - Vertical (3G)	
	Single V-Groove Weld - Flat position (1G)	
	Fillet Weld Around 1” to 2” Circle	
	Macro Etch Test	
	Weld Parts to Blueprint	
	Blueprint Magnet Tests	
	Shielded Metal Arc Welding – SMAW	
	Introduction to Shielded Metal Arc Welding	
	Safety and Health of Welders and Implement in class	
	Installation, Setup and Maintenance of Equipment	
	The Five Essentials	
	Striking and Controlling the Arc	
	Power Sources	
	Electrode Selection	
	Surfacing Welds - Flat Position (E6010 and E7018)	
	Fillet Weld - T-joint & Lap - Horizontal Position (2F)	



	Fillet Weld - T-joint Vertical (3F)	
	Fillet Weld - T-joint Overhead (4F)	
	Triple Pass Weld – 2f position	
	Square Groove Weld - Flat Position (1G)	
	Flux Cored Arc Welding – FCAW	
	Introduction to Flux Cored Arc Welding	
	Safety and Health of Welders and Implement in class	
	Installation, Setup and Maintenance of Equipment <u>The Five Essentials</u>	
	Fillet Weld - T-joint Horizontal Position (2F)	
	Fillet Weld - T-joint Vertical Position (3F)	
	Fillet Weld - T-joint Overhead Position (4F)	
	Triple Pass Weld - Horizontal Position (2F)	

***Course providers outside of the Career Academy of Pella may have classes by a different name, which teach the same academic competency as the Career Academy course listed**