Crawford County Career & Technical Center

Competency Task List – Secondary Component
Welding Technology/Welder CIP 48.0508
High School Graduation Years 2026, 2027, 2028

100 Occupational Orientation and Safety

Item	Task	(X) Indicates Proficiency [1]	Secondary Course Crosswalk
101	Complete time or job sheet, reports, or records.		
102	Perform housekeeping duties daily.		
103	Follow verbal instructions to complete work assignments and rules.		
104	Follow written instructions to complete work assignments and rules.		
105	Inspect and use Personal Protection Equipment (PPE) daily.		
106	Maintain proper organization and operation of work area.		
107	Demonstrate proper use of ventilation equipment.		
108	Discuss proper hot work operation.		
109	Demonstrate knowledge of proper work actions for working in confined spaces.		
110	Identify Safety Data Sheets (SDS) and precautionary labeling.		
	RESERVED (111)		
112	Display familiarity with industrial and OSHA safety standards.		
113	Discuss oxyfuel safety procedures.		
114	Discuss arc welding/cutting safety procedures.		
115	Follow emergency action plan.		

200 Principles of Welding

Item	Task	(X) Indicates Proficiency [1]	Secondary Course Crosswalk
201	Identify major types of metals (ferrous and nonferrous) used in welding.		
202	Describe the basic principles of heat, expansion, and contraction as they relate to metals.		
	RESERVED (203)		
204	Describe the industry accepted welding codes, standards, and procedures and their use.		
205	Identify various joint designs (joint geometry).		
206	Clean and prepare materials for welding and/or cutting.		
207	Demonstrate proper use of hand tools.		
208	Demonstrate proper use of standard measuring and layout tools.		
209	Demonstrate proper use of battery/power equipment.		

300 Welding, Drawing, and Weld Symbol Interpretation

Item	Task	(X) Indicates Proficiency [1]	Secondary Course Crosswalk
301	Interpret basic elements of a drawing or sketch.		
302	Interpret welding symbol information.		
303	Fabricate parts from a drawing or sketch (class project).		
304	Identify structural materials used in the metal fabrication field.		
305	Perform basic metric conversion.		

400 Visual Examination, Inspection, and Testing

Item	Task	(X) Indicates Proficiency [1]	Secondary Course Crosswalk
401	Evaluate cut surfaces and edges of prepared base metal parts for testing.		
402	Identify and evaluate weld discontinuities as per accept/reject criteria.		
403	Perform visual inspection, destructive, and non-destructive testing.		

500 Shielded Metal Arc Welding (SMAW)

Item	Task	(X) Indicates Proficiency [1]	Secondary Course Crosswalk
501	Perform safety inspections of SMAW equipment.		
502	Make minor external repairs to SMAW equipment.		
503	Set up and operate SMAW equipment.		
	RESERVED (504-507)		
508	Pass fillet weld performance test in flat position.		
509	Pass fillet weld performance test in horizontal position.		
510	Pass fillet weld performance test in vertical position.		
511	Pass fillet weld performance test in overhead position.		
512	Pass groove weld performance test in flat position.		
513	Pass groove weld performance test in horizontal position.		
514	Pass groove weld performance test in vertical position.		
515	Pass groove weld performance test in overhead position.		

600 Gas Metal Arc Welding (GMAW)

Item	Task	(X) Indicates Proficiency [1]	Secondary Course Crosswalk
601	Perform safety inspections of GMAW equipment.		
602	Make minor external repairs to GMAW equipment.		
603	Set up and operate GMAW equipment.		
	RESERVED (604-606)		
607	Pass fillet weld performance test in flat position.		
608	Pass fillet weld performance test in horizontal position.		
609	Pass fillet weld performance test in vertical position.		
610	Pass fillet weld performance test in overhead position.		
611	Pass groove weld performance test in flat position.		
612	Pass groove weld performance test in horizontal position.		
613	Pass groove weld performance test in vertical position.		

614	Pass groove weld performance test in overhead position.		

700 Flux Corded Arc Welding (FCAW)

Item	Task	(X) Indicates Proficiency [1]	Secondary Course Crosswalk
701	Perform safety inspections of FCAW equipment.		
702	Make minor external repairs to FCAW equipment.		
703	Set up and operate FCAW equipment.		
	RESERVED (704-706)		
707	Pass fillet weld performance test in flat position.		
708	Pass fillet weld performance test in horizontal position.		
709	Pass fillet weld performance test in vertical position.		
710	Pass fillet weld performance test in overhead position.		
711	Pass groove weld performance test in flat position.		
712	Pass groove weld performance test in horizontal position.		
713	Pass groove weld performance test in vertical position.		
714	Pass groove weld performance test in overhead position.		

800 Gas Tungsten Arc Welding (GTAW)

Item	Task	(X) Indicates Proficiency [1]	Secondary Course Crosswalk
801	Perform safety inspections of GTAW equipment.		
802	Make minor external repairs to GTAW equipment.		
803	Set up and operate GTAW equipment.		
	RESERVED (804-805)		
806	Set up and operate GTAW on nonferrous materials.		
	RESERVED (807-808)		
809	Pass fillet weld performance test in flat position on ferrous materials.		
810	Pass fillet weld performance test in horizontal position on ferrous materials.		
811	Pass fillet weld performance test in vertical position on ferrous materials.		

812	Pass fillet weld performance test in overhead position on ferrous materials.		
813	Pass fillet weld performance test in flat position on nonferrous materials.		
814	Pass fillet weld performance test in horizontal position on nonferrous materials.		
815	Pass fillet weld performance test in vertical position on nonferrous materials.		
816	Pass fillet weld performance test in overhead position on nonferrous materials.		

900 Manual Oxy-fuel Gas Cutting (OFC)

Item	Task	(X) Indicates Proficiency [1]	Secondary Course Crosswalk
901	Perform safety inspections of OFC equipment.		
902	Make minor external repairs to OFC equipment.		
903	Set up for manual OFC operations on steel.		
904	Operate manual OFC equipment.		
905	Perform straight cutting operations on steel.		
906	Perform shape cutting operations on steel.		
907	Perform bevel cutting operations on steel.		
908	Perform piercing operations on steel.		
910	Perform washing operations to remove base and weld metal.		

1000 Mechanized Oxy-fuel Gas Cutting (OFC)

Item	Task	(X) Indicates Proficiency [1]	Secondary Course Crosswalk
1001	Perform safety inspections of mechanized OFC equipment.		
1002	Make minor external repairs to mechanized OFC equipment.		
1003	Set up and operate mechanized OFC equipment on steel.		
1004	Perform straight mechanized OFC operations on steel.		
1005	Perform bevel mechanized OFC operations on steel.		

1100 Manual Plasma Arc Cutting (PAC)

Item	Task	(X) Indicates Proficiency [1]	Secondary Course Crosswalk
1101	Perform safety inspections of PAC equipment.		
1102	Make minor external repairs to PAC equipment.		
1103	Set up and operate manual PAC operations on ferrous and nonferrous materials.		
1104	Perform straight and shape PAC operations on ferrous and nonferrous materials.		
1105	Perform gouging and scarfing PAC operations to remove base and weld metal on ferrous and nonferrous materials.		

1200 Manual Air Carbon Arc Cutting (CAC-A)

Item	Task	(X) Indicates Proficiency [1]	Secondary Course Crosswalk
1201	Perform safety inspections of CAC-A equipment and accessories.		
1202	Make minor external repairs to CAC-A equipment and accessories.		
1203	Set up and operate manual CAC-A gouging and cutting operations on steel.		
1204	Perform gouging and scarfing operations to remove base and weld metal on steel.		

1300 Reserved

[1] Student Demonstrated Entry-Level Industry Proficiency as Indicated by (X)

Secondary CTE Instructor Signature _____ Date _____

Student Signature _____ Date _____