Kentucky CTE

Welding Technology: Gas Metal Arc Welding and Lab

Practice and perform safe shop procedures at all times. GMAWL1	**1** Practice and perform safe shop procedures at all times. GMAWL1
Apply the technical math required for employment opportunities in welding. GMAWL2	**2** Apply the technical math required for employment opportunities in welding. GMAWL2
Perform all duties with GMAWL3	**a** integrity GMAWL3A
	b responsibility GMAWL3B
	c quality GMAWL3C
	d discipline GMAWL3D
	e teamwork GMAWL3E
Use lab equipment and tools. GAMWL4	**4** Use lab equipment and tools. GAMWL4
Apply principles of GMAW to weld metals including FCAW and SMAW. GMAWL5	**5** Apply principles of GMAW to weld metals including FCAW and SMAW. GMAWL5
Apply knowledge of the effects of variables of GMAW to weld plate and pipe. GMAWL6	**6** Apply knowledge of the effects of variables of GMAW to weld plate and pipe. GMAWL6
Apply knowledge of ba… co… ph…	**7** Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels. GMAWL7

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mechanical properties of alloy steels. GMAWL7	
Identify and select filler materials for GMAW processes. GMAWL8	8 Identify and select filler materials for GMAW processes. GMAWL8
Weld fillet welds in all positions using various transfer modes on steel, stainless steel, and aluminum. GMAWL9	9 Weld fillet welds in all positions using various transfer modes on steel, stainless steel, and aluminum. GMAWL9
Interpret and apply tolerances. GMAWL10	10 Interpret and apply tolerances. GMAWL10
Interpret and apply American Welding Society welding symbols. GMAWL11	11 Interpret and apply American Welding Society welding symbols. GMAWL11
Draw shop sketches. GMAWL12	12 Draw shop sketches. GMAWL12
Read and interpret blueprints. GMAWL13	13 Read and interpret blueprints. GMAWL13
Interpret lines. GMAWL14	14 Interpret lines. GMAWL14
Interpret views to include AWS (ISO symbols optional). GMAWL15	15 Interpret views to include AWS (ISO symbols optional). GMAWL15
Interpret conventional and datum line dimensions. GMAWL16	16 Interpret conventional and datum line dimensions. GMAWL16
Interpret and apply tolerances. GMAWL17	17 Interpret and apply tolerances. GMAWL17
Interpret sectioning and section lines. GMAWL18	18 Interpret sectioning and section lines. GMAWL18

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Apply principles of oxy-fuel systems to cut, weld, braze, and braze-weld with oxy-fuel. GMAWL19	**19** **Apply principles of oxy-fuel systems to cut, weld, braze, and braze-weld with oxy-fuel.** GMAWL19
Apply principles of controlling distortion. GMAWL20	**20** **Apply principles of controlling distortion.** GMAWL20
Set up components of oxy-fuel equipment and setup procedures. GMAWL21	**21** **Set up components of oxy-fuel equipment and setup procedures.** GMAWL21
Apply oxy-fuel cutting applications and procedures. GMAWL22	**22** **Apply oxy-fuel cutting applications and procedures.** GMAWL22
Apply oxy-fuel welding applications and procedures. GMAWL23	**23** **Apply oxy-fuel welding applications and procedures.** GMAWL23
Apply brazing and braze welding principles and applications. GMAWL24	**24** **Apply brazing and braze welding principles and applications.** GMAWL24