Kentucky CTE

Welding Technology: Shielded Metal Arc Welding (SMAW) and Lab

Practice and perform safe shop procedures at all times. SMAWL1	**1** Practice and perform safe shop procedures at all times. SMAWL1
Apply the technical math required for employment opportunities in welding. SMAWL2	**2** Apply the technical math required for employment opportunities in welding. SMAWL2
Perform all duties with SMAWL3	**a** integrity SMAWL3A **b** responsibility SMAWL3B **c** quality SMAWL3C **d** discipline SMAWL3D **e** teamwork SMAWL3E
Identify, select, and store SMAW electrodes. SMAWL4	**4** Identify, select, and store SMAW electrodes. SMAWL4
Apply principles of SMAW process to cut and weld metals. SMAWL5	**5** Apply principles of SMAW process to cut and weld metals. SMAWL5
Apply the knowledge of the effects of variables on the SMAW process to weld plate and pi	**6** Apply the knowledge of the effects of variables on the SMAW process to weld plate and pipe. SMAWL6

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Apply the knowledge of basic metallurgy to control chemical, physical, and mechanical properties of carbon steel. SMAWL7	**7** **Apply the knowledge of basic metallurgy to control chemical, physical, and mechanical properties of carbon steel.** SMAWL7
Use shop equipment and tools SMAWL8	**8** **Use shop equipment and tools** SMAWL8
Interpret and apply tolerances. SMAWL9	**9** **Interpret and apply tolerances.** SMAWL9
Interpret and apply American Welding Society welding symbols. SMAWL10	**10** **Interpret and apply American Welding Society welding symbols.** SMAWL10
Draw shop sketches. SMAWL11	**11** **Draw shop sketches.** SMAWL11
Read and interpret blueprints. SMAWL12	**12** **Read and interpret blueprints.** SMAWL12
Interpret lines. SMAWL13	**13** **Interpret lines.** SMAWL13
Interpret views to include AWS (ISO symbols optional). SMAWL14	**14** **Interpret views to include AWS (ISO symbols optional).** SMAWL14
Interpret conventional and datum line dimensions. SMAWL15	**15** **Interpret conventional and datum line dimensions.** SMAWL15
Interpret and apply tolerances. SMAWL16	**16** **Interpret and apply tolerances.** SMAWL16
Interpret sectioning and section lines. SMAWL17	**17** **Interpret sectioning and section lines.** SMAWL17
Apply principles of oxy-fuel systems to cut, we **we fue**	**18** **Apply principles of oxy-fuel systems to cut, weld, braze, and braze-weld with oxy-fuel.** SMAWL18

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Apply principles of controlling distortion. SMAWL19	**19** **Apply principles of controlling distortion.** SMAWL19
Set up components of oxy-fuel equipment and setup procedures. SMAWL20	**20** **Set up components of oxy-fuel equipment and setup procedures.** SMAWL20
Apply oxy-fuel cutting applications and procedures. SMAWL21	**21** **Apply oxy-fuel cutting applications and procedures.** SMAWL21
Apply oxy-fuel welding applications and procedures. SMAWL22	**22** **Apply oxy-fuel welding applications and procedures.** SMAWL22
Apply brazing and braze welding principles and applications. SMAWL23	**23** **Apply brazing and braze welding principles and applications.** SMAWL23