Kentucky CTE

Advanced Manufacturing: Industrial Maintenance Technology: Gas Metal Arc Welding and Lab 470367 (2026–2027)

Practice and perform safe shop procedures at all times. 1	1 Practice and perform safe shop procedures at all times. 1
Apply the technical math required for employment opportunities in maintenance. 2	2 Apply the technical math required for employment opportunities in maintenance. 2
Perform all duties with emphasis on integrity, responsibility, quality, discipline and teamwork. 3	3 Perform all duties with emphasis on integrity, responsibility, quality, discipline and teamwork. 3
Apply the technical math required for employment opportunities in welding. 4	4 Apply the technical math required for employment opportunities in welding. 4
Use lab equipment and tools. 5	5 Use lab equipment and tools. 5
Apply principles of GMAW to weld metals to inc SM	6 Apply principles of GMAW to weld metals to include FCAW and SMAW. 6

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Apply knowledge of the effects of variables of GMAW to weld plate and pipe. 7	**7** **Apply knowledge of the effects of variables of GMAW to weld plate and pipe.** 7
Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels. 8	**8** **Apply knowledge of basic metallurgy to control chemical, physical, and mechanical properties of alloy steels.** 8
Identify and select filler materials for GMAW processes. 9	**9** **Identify and select filler materials for GMAW processes.** 9
Weld fillet welds in all positions using various transfer modes on steel, stainless steel, and aluminum. 10	**10** **Weld fillet welds in all positions using various transfer modes on steel, stainless steel, and aluminum.** 10