

1. Title	Basic oxy-acetylene welding (OAW) / oxyfuel and arc cutting (OAC)		
2. Code	EMCUIN226A		
3. Range	Perform OAW / OAC tasks for electrical and mechanical works at electrical and mechanical welding workshops or work sites.		
4. Level	2		
5. Credits	5		
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Code of practice and preparations for OAW / OAC</p> <ul style="list-style-type: none"> <li>◆ Understand relevant code of practice and safety regulation for OAW / OAC, including: <ul style="list-style-type: none"> <li>• Operating OAW / OAC equipment and accessories, including handling of gaseous cylinder, correctly and safely</li> <li>• Wearing proper personal protective gear</li> <li>• Protecting against fire and explosion</li> <li>• Protecting against harmful arc ray effectively</li> <li>• Protecting against harmful gases and poisonous fumes</li> <li>• Following the legislations and safety guidelines on OAW / OAC</li> </ul> </li> <li>◆ Know about the preparations for OAW / OAC: <ul style="list-style-type: none"> <li>• Understand the general application and their limitations of OAW / OAC</li> <li>• Understand functions of various OAW / OAC equipment, including high pressure gaseous cylinder, pressure regulator, flashback arrestor, welding torch and cutting torch , etc.</li> <li>• Identify the requirements of welding materials for oxyacetylene welding and cutting such welding rods, welding flux, etc</li> </ul> </li> <li>◆ Perform quality inspection on weld profile <ul style="list-style-type: none"> <li>• Identify various types of common and simple surface weld defects at welded joints, such as undercut, overlap and porosities</li> <li>• Avoid causing the simple surface weld defects mentioned above</li> </ul> </li> </ul> <p>6.2 Methods and procedures for operating OAW / OAC</p> <ul style="list-style-type: none"> <li>◆ Apply OAW / OAC techniques <ul style="list-style-type: none"> <li>• Select proper parameters for welding, such as gas flowrate and pressure, angle of welding and cutting torch, welding or cutting speed, etc.</li> <li>• Perform following tasks: <ul style="list-style-type: none"> <li>▸ Perform linear surface build up at flat position</li> <li>▸ Perform plate cutting at flat position</li> </ul> </li> </ul> </li> </ul>		

	<ul style="list-style-type: none"> <li>‣ Perform two sides square edge butt weld at flat position and horizontal position</li> <li>‣ Perform fillet weld at flat position and horizontal position</li> <li>‣ Perform plate cutting at horizontal position and vertical position</li> </ul>
	6.3 Professionalism in OAW / OAC      ♦ Perform OAW / OAC tasks according to relevant safety guidelines and code of practice
7. Assessment Criteria	The integrated outcome requirements of this unit of competency are:  (i) Capable to complete basic OAW / OAC tasks without causing obvious surface weld defects; and  (ii) Capable to perform OAW / OAC tasks safely.
8. Remarks	This unit of competency is applicable to general electrical and mechanical welding practitioners.