| 1. Title | Basic metal inert gas (MIG)/gas metal arc welding (GMAW) |
|------------------------|---|
| 2. Code | EMCUIN211A |
| 3. Range | Perform MIG/GMAW tasks on parent materials like carbon steel and aluminum alloy at electrical and mechanical welding workshops or work sites. |
| 4. Level | 2 |
| 5. Credits | 5 |
| 6. Competency | Performance Requirements |
| | 6.1 Code of practice and preparations for Operate MIG/GMAW equipment and accessories correctly and safely MIG/GMAW • Wear proper personal protective gear • Protect against electric shock • Protect against fire and explosion • Protect against harmful arc ray effectively • Protect against harmful gases and poisonous fumes • Know about the preparations for MIG/GMAW, including to: • Understand the general applications and their limitations of MIG/GMAW • Understand the types of MIG/GMAW machines, including the wire feeding system and gas supply system • Identify the requirements on welding materials of MIG/GMAW, such as welding wire and shielding gas |
| | Methods and procedures for operating MIG/GMAW Methods and procedures for operating MIG/GMAW Perform surface build up at flat position Perform square edge butt weld at flat position and horizontal positions Perform fillet weld at flat position and horizontal positions Identify various types of common and simple surface weld defects at welded joints, such as undercut, overlap and porosities Avoid causing the simple surface weld defects mentioned above Perform MIG/GMAW tasks according to relevant safety guidelines and code of practice |
| 7. Assessment Criteria | The integrated outcome requirement of this unit of competency is: (i) Capable to complete basic MIG/GMAW tasks without causing obvious surface weld defects; and |
| | (ii) Capable to perform MIG/GMAW tasks safely. |
| 8. Remarks | This unit of competency is applicable to general electrical and mechanical welding practitioners. |