

1. Title	Assemble pipings for air-conditioning and refrigeration engineering
2. Code	EMACIN308A
3. Range	Assemble piping for air-conditioning and refrigeration engineering at air-conditioning and refrigeration equipment installation, repair and maintenance sites.
4. Level	3
5. Credit	6
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Properties and applications of piping materials for air-conditioning and refrigeration engineering</p> <ul style="list-style-type: none"> <li>◆ Understand the properties of typical piping materials for air-conditioning and refrigeration engineering</li> <li>◆ Understand the applications of different types of pipes</li> <li>◆ Understand the functions of typical galvanized steel pipe fittings, including socket, elbow, reducer, tee, bushing, nipple and pipe plug</li> <li>◆ Identify typical galvanized steel pipe fittings</li> </ul> <p>6.2 Methods and procedures of assembling piping for air-conditioning and refrigeration engineering</p> <ul style="list-style-type: none"> <li>◆ Cut galvanized steel pipes with a diameter of 50mm</li> <li>◆ Use electric threader to make screw threads for 50mm galvanized steel pipes</li> <li>◆ Connect 50mm galvanized steel pipes by thread joint and conduct 1,000Pa water pressure leak test</li> <li>◆ Cut and bend copper pipes with a diameter of 15.88mm</li> <li>◆ Use silvering-brazing method to join 35mm hard copper pipes and conduct 1,000Pa water pressure leak test</li> <li>◆ Cut and bend PVC pipes with a diameter of 25mm</li> <li>◆ Join the PVC pipes with glue</li> </ul> <p>6.3 Professionalism in assembling piping for air-conditioning and refrigeration engineering</p> <ul style="list-style-type: none"> <li>◆ Understand the safety guidelines as required by the law and the code of practice to undertake assembling and brazing of piping for air-conditioning and refrigeration engineering</li> </ul>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Capable to assemble, join and braze various types of piping for air-conditioning and refrigeration engineering, and conform to the pressure test requirements; and</p> <p>(ii) Capable to follow the code of practice to assemble, join and braze piping for air-conditioning and refrigeration engineering.</p>
8. Remarks	This unit of competency is applicable to practitioners engaged in general practitioners engaged in the installation, maintenance and repair of air-conditioning and refrigeration equipments.