

1. Title	Perform basic testing and measuring of air-conditioning and refrigeration systems
2. Code	EMACIT202A
3. Range	Perform basic testing and measuring of air-conditioning and refrigeration systems at installation or servicing stations under a certain degree of instruction
4. Level	2
5. Credit	5
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Methods of using typical testing and measuring instruments for air-conditioning and refrigeration systems</p> <ul style="list-style-type: none"> <li>◆ Understand the definition of units of measurement of temperature, relative humidity, pressure and air velocity</li> <li>◆ Understand the using methods and applications of various types of thermometer</li> <li>◆ Understand the using methods and applications of various types of relative humidity measurement instruments</li> <li>◆ Understand the using methods and applications of various types of pressure measurement instruments</li> <li>◆ Understand the using methods and applications of various types of air velocity measurement instruments</li> <li>◆ Understand the using methods and applications of various types of sound level measurement instruments</li> </ul> <p>6.2 Basic methods and procedures of testing and measuring air-conditioning and refrigeration systems</p> <ul style="list-style-type: none"> <li>◆ Use typical thermometers to measure the temperature of the measuring points of an air-conditioning and refrigeration system</li> <li>◆ Use typical psychrometers to measure indoor relative humidity</li> <li>◆ Use gauge manifold to measure the high side pressure and low side pressure of a refrigeration system</li> <li>◆ Use vane-type air velocity meter to measure supply air velocity of an air-conditioning system</li> <li>◆ Use sound level meter to measure the sound level of air-conditioning system equipment</li> </ul> <p>6.3 Professionalism in basic testing and measuring of air-conditioning and refrigeration systems</p> <ul style="list-style-type: none"> <li>◆ Follow the user manual instructions to use air-conditioning and refrigeration system testing and measuring instruments</li> <li>◆ Follow the code of practice to test and measure air-conditioning and refrigeration systems</li> </ul>

7. Assessment Criteria	The integrated outcome requirements of this unit of competency are:  (i) Capable to measure the temperature, relative humidity, pressure and air velocity of an air-conditioning and refrigeration system ; and  (ii) Capable to follow the code of practice to test and measure air-conditioning and refrigeration systems.
8. Remarks	This unit of competency is applicable to practitioners engaged in general installation, repair and commissioning of air-conditioning and refrigeration systems.