

1. Title	Design central hot water supply systems									
2. Code	EMPDDE409A									
3. Range	Understand the designs and applications of central hot water supply systems. This unit of competency is applicable to practitioners engaged in central hot water supply system design, contracting work and repair and maintenance.									
4. Level	4									
5. Credits	3									
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <table border="0"> <tr> <td style="vertical-align: top;">6.1</td> <td style="vertical-align: top;">Understand the operating principles of central hot water supply systems</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>◆ Understand the operating principles of various types of central hot water supply systems and their ancillary systems such as boiler, storage water tank and heat exchanger</li> <li>◆ Know about the construction and safety equipment of hot water systems</li> </ul> </td> </tr> <tr> <td style="vertical-align: top;">6.2</td> <td style="vertical-align: top;">Design central hot water supply systems</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>◆ Apply professional knowledge of central hot water installations to hot water system design solutions</li> <li>◆ Provide appropriate central hot water installations according to the environment and customers' requirements</li> <li>◆ Consider the design and installation of water supply pipes, use of water source (direct/indirect water supply) and pipe connection</li> <li>◆ Select and use pressure release valves/ pressure reducing valves</li> </ul> </td> </tr> <tr> <td style="vertical-align: top;">6.3</td> <td style="vertical-align: top;">Professionalism in designing central hot water supply systems</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>◆ Design central hot water systems and their ancillary systems according to safety guidelines, plumbing ordinance and electricity regulations</li> </ul> </td> </tr> </table>	6.1	Understand the operating principles of central hot water supply systems	<ul style="list-style-type: none"> <li>◆ Understand the operating principles of various types of central hot water supply systems and their ancillary systems such as boiler, storage water tank and heat exchanger</li> <li>◆ Know about the construction and safety equipment of hot water systems</li> </ul>	6.2	Design central hot water supply systems	<ul style="list-style-type: none"> <li>◆ Apply professional knowledge of central hot water installations to hot water system design solutions</li> <li>◆ Provide appropriate central hot water installations according to the environment and customers' requirements</li> <li>◆ Consider the design and installation of water supply pipes, use of water source (direct/indirect water supply) and pipe connection</li> <li>◆ Select and use pressure release valves/ pressure reducing valves</li> </ul>	6.3	Professionalism in designing central hot water supply systems	<ul style="list-style-type: none"> <li>◆ Design central hot water systems and their ancillary systems according to safety guidelines, plumbing ordinance and electricity regulations</li> </ul>
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7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Capable to design central hot water systems and their ancillary systems; and</p> <p>(ii) Capable to list out space and operating requirements for central hot water systems and their ancillary systems.</p>									
8. Remarks	The credit value of this unit of competency is set on the presumption that the person already possesses knowledge of water supply and drainage.									