

1. Title	Design specialized fire systems and equipment
2. Code	EMFSDE504A
3. Range	Analyze, reorganize, assess and integrate information critically by dealing with abstract ideas, concepts and thoughts; instruct subordinates to perform different levels of tasks of designing specialized fire systems and equipment according to client needs, building codes and limitations.
4. Level	5
5. Credit	6
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Knowledge of designing specialized fire systems and equipment</p> <ul style="list-style-type: none"> <li>◆ Master the construction, working principles and characteristics of different types of specialized fire systems and equipment, including: <ul style="list-style-type: none"> <li>• Fixed foam system</li> <li>• Dry chemical system</li> <li>• Water mist system</li> </ul> </li> <li>◆ Understand building uses, architectural design codes and client needs</li> <li>◆ Understand the design standards and major requirements of specialized fire systems <ul style="list-style-type: none"> <li>• The Code of Practice for Fire Service Installations and Equipment</li> <li>• Recognized international standards (BSEN, NFPA)</li> </ul> </li> </ul> <p>6.2 Design specialized fire systems and equipment</p> <ul style="list-style-type: none"> <li>◆ Lead subordinates to perform various types of tasks of designing specialized fire systems and equipment according to client needs, manufacturer guidelines, recognized standards and relevant local regulations</li> <li>◆ Formulate the system drawings and outline design layout plans of various types of equipment according to building codes and limitations</li> <li>◆ Calculate and determine the performance requirements and the size of specialized fire systems and equipment according to building codes and limitations, including: <ul style="list-style-type: none"> <li>• Determining pipe diameter and nozzle size</li> <li>• Number of containers or storage capacity</li> <li>• Calculating other operation data of specialized fire systems and equipment</li> </ul> </li> <li>◆ Formulate the specifications of various types of specialized fire systems and equipment and select relevant equipment</li> </ul>

	<p>6.3 Professionalism in designing specialized fire systems and equipment</p> <p>◆ Lead subordinates to design specialized fire systems and equipment according to legal requirements, codes of practice and design standards</p>
<p>7. Assessment Criteria</p>	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Capable to apply special and innovative techniques and lead subordinates to perform tasks of designing specialized fire systems and equipment according to client needs and building codes and limitations; and</p> <p>(ii) Capable to provide the sector and clients with designs of specialized fire systems and equipment.</p>
<p>8. Remarks</p>	<p>The credit value of this unit of competency is set on the presumption that the person already possesses general knowledge of specialized fire systems and equipment.</p>