

1. Title	Formulate engineering design solutions
2. Code	EMELDE410A
3. Range	Applicable to tasks related to electrical and mechanical works. Use relevant data and information to perform computation for electrical and mechanical works and formulate engineering design solutions.
4. Level	4
5. Credit	3
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Understand methods of collecting necessary design data for electrical and mechanical works</p> <ul style="list-style-type: none"> <li>◆ Understand methods of collecting necessary design data for electrical and mechanical work such as international standards, announcements made by engineering societies, site investigations, etc.</li> </ul> <p>6.2 Formulate engineering design solutions</p> <ul style="list-style-type: none"> <li>◆ Obtain data and information for various types of electrical and mechanical projects from relevant regulations, international standards, announcements made by engineering societies, site investigations, etc, including: <ul style="list-style-type: none"> <li>• Maximum demand of the installations</li> <li>• Demand of various electrical and mechanical facilities, required floor space and locations</li> <li>• Human resources and costs involved in every stage of the project</li> <li>• Quality assurance data</li> <li>• Market capacity and share</li> </ul> </li> <li>◆ Use relevant data and information to perform computation for electrical and mechanical works, and formulate engineering solutions for the areas of design, installation, inspection, testing, commissioning, operation, repair, maintenance, project management, engineering operation management, occupational health, safety and environmental protection, quality management, marketing and sales, etc.</li> </ul>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency is:</p> <p>(i) Capable to obtain necessary data and information to perform computation for specified electrical and mechanical works, and formulate relevant engineering design solutions.</p>
8. Remarks	