

1. Title	Analyze electrical engineering data and information
2. Code	EMELDE322A
3. Range	Applicable to electrical and mechanical engineering design. Obtain electrical engineering data and information and perform design and analyses according to relevant regulations and guidelines on design from organizations such as engineering societies, etc.
4. Level	3
5. Credit	3
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Electrical engineering data and information</p> <ul style="list-style-type: none"> ◆ Follow electrical engineering design details, and understand relevant regulations, guidelines on design from organizations such as engineering societies, etc. and electrical engineering data and information <ul style="list-style-type: none"> • Relevant technical guidelines include: <ul style="list-style-type: none"> ▸ Electricity (Wiring) Regulations and their code of practice ▸ IEE Wiring Regulations (BS7671) ▸ Relevant design guidelines by Institute of Building Services Engineers ▸ Electrical and Mechanical Services Department's codes of practice for energy efficiency of lighting and electrical installations to formulate energy consumption indicators and benchmarks • Electrical engineering data and information such as: <ul style="list-style-type: none"> ▸ Demand of major electrical and mechanical facilities e.g. air-conditioning and ventilating systems, lifts, fire service and water pumps, etc. ▸ Estimate the installation's maximum power demand (kVA/m²) according to the uses of the building ▸ Expected short-circuit current of the source of supply of the installation ▸ Earth fault loop impedance of the system outside the installation ▸ Safety facilities and backup power supply, etc.

	<p>6.2 Analyze electrical engineering data and information</p> <p>◆ Obtain electrical engineering data and information and perform design and analyses. Design items include:</p> <ul style="list-style-type: none"> • Maximum power demand of the installation • Area and locations for transformer room, main switch room, meter room, electrical pipes and backup generator room • Low voltage switchboard, generators, cables, various kinds of switches, protection and control devices, lighting appliances, earthing and lightning protection system, etc.
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency is:</p> <p>(i) Capable to, base on the electrical engineering data and information obtained, to perform design and analyses according to design guidelines from relevant engineering institutions.</p>
8. Remarks	