1. Title	Marine engineering equipment power calculations
2. Code	EMSRDE403A
3. Range	Apply the principles of marine engineering equipment design and calculations to ship design tasks.
4. Level	4
5. Credit	6
6. Competency	Performance Requirements 6.1 Basic principles for the construction and design of marine engineering equipment ♦ Be familiar with the basic principles for the construction and design of marine engineering equipment including: • main propulsion devices for low/medium/high-speed diesel engine, steam turbine, gas turbine and power drives, propeller and other types of propulsion systems • boiler • auxiliary equipment • ancillary equipment • ship pumping and piping system • fire services installations 6.2 Techniques of calculating marine engineering equipment power ♦ Apply the knowledge of marine engineering equipment design to marine engineering equipment power calculations for implementation of ship design, including: • Reading propulsion device layout plan to obtain information on the arrangement of structures • Analyzing the functions of different gas turbines and correctly select appropriate components or designs 6.3 Professionalism in calculating marine engineering equipment power ♦ Follow approved specifications of marine engineering equipment and apply the knowledge of marine engineering equipment power to design marine engineering equipment
7. Assessment Criteria	The integrated outcome requirement of this unit of competency is: (i) Capable to use the principles of marine engineering equipment design and general structural arrangement, and calculate the power of marine engineering equipment in order to implement relevant design tasks.
8. Remarks	The credit value of this unit of competency is set on the presumption that the person already possesses basic mechanical and calculation knowledge and the competency of EMSRDE301A "Basic calculations for ship design".