

1. Title	Organize and arrange ships' outfitting works
2. Code	EMSRIN401A
3. Range	Study hull structure and its principles of mechanics and formulate assembly processes, supervise works execution and perform general tasks of frontline works management at shipyards when handling daily routines related to outfitting works.
4. Level	4
5. Credit	3
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Methods of assessing ship strength and hull resistance</p> <ul style="list-style-type: none"> ◆ Master the following methods of assessing ship strength: <ul style="list-style-type: none"> • Calculating longitudinal stress, transverse stress and local stress • Working out the load and shear and bending moment diagrams • Calculating the longitudinal stress of ships in calm water and regular waves • Understanding the tilt parameters of hulls ◆ Master the following methods of assessing hull resistance and understand the importance of friction on sea navigation <ul style="list-style-type: none"> • Practical skills of analyzing resistance and boundary layer • Analyzing the flow resistance parameters and the measurements of approximate total resistance of ships • Applying the formulae related to displacement, momentum, energy and ship mechanics in calculations <p>6.2 Supervise ship outfitting works</p> <ul style="list-style-type: none"> ◆ Apply fully the above methods to formulation of ship outfitting works ◆ Adopt the most appropriate assembly measures to enhance the features of ship structure based on ship strength and hull resistance <p>6.3 Professionalism in supervising ship outfitting works</p> <ul style="list-style-type: none"> ◆ Meet the requirements laid down in approved drawings of outfitting works for hulls, including in-house guidelines, customer needs and manufacturer's manuals ◆ Make arrangements for hull dismantling, modifications or assembly and assist in preparing drawings ◆ Arrange assembly processes and coordinate the efforts according to actual situation

7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none">(i) Capable to estimate the stress exerted on ships accurately under static conditions;(ii) Capable to apply the data of resistance on ships to preliminary estimation; and(iii) Capable to carry out relevant processes for outfitting works on ships, apply tools and instruments, record data and adjust to assembly standards properly.
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already possesses basic knowledge of physics.</p>