

Role	Engineering Sub-group secretary	Vice Principal
Organisation	International representative body	Nautical college
Module	Marine Engineering - Electro-Technology	Marine Engineering - Electro-Technology
Your Feedback - Outcome 1	#N/A	#N/A
Sub-Group 1.2 Response	#N/A	#N/A
Your Feedback - Outcome 2	#N/A	#N/A
Sub-Group 1.2 Response	#N/A	#N/A
Your Feedback - Outcome 3	By all means remove the theory of complex numbers to the mathematics module, however this is the ONLY part of the whole syllabus that requires this discipline. Removing the use from this unit will remove the contextualisation, leaving cadets wondering why they were expected to learn this theory in the first place.	#N/A
Sub-Group 1.2 Response	Many thanks for your feedback, it has been noted.  We agree with your comment but believe it has been covered in our suggested action. The outcome will be moved to the Mathematics for Engineering module and renamed to specifically contextualise the topic.	#N/A
Your Feedback - Outcome 4	#N/A	#N/A
Sub-Group 1.2 Response	#N/A	#N/A
Your Feedback - Outcomes Above and Beyond	#N/A	Very good to see that practical expereimentation has been signposted. This also needs to be reflected in the summative assessment and should also be de-conflicted with learning outcomes in the Engineering Workshop skills.
Sub-Group 1.2 Response	#N/A	Many thanks for your feedback.
Your Proposed Outcome	#N/A	Ensure that any practical activities are mapped to the workshop activites to avoid duplication and potential double credit (one learning activity meeting the needs of 2 learnign outcomes, but sea time remission being given for the two separate activities).
Your Rationale for this outcome	#N/A	Ensure that we are not giving sea time remission for embedded lab work and workshop skills trthough doing only one activity.
Your Action for this outcome	#N/A	Clear delineation between group awards and removal of duplication.
Sub-Group 1.2 Response	#N/A	Many thanks for your feedback, it has been noted.  We agree with your suggestion and feel that this has been covered by our suggested actions throughout the module. However, we will ensure overlap with the workshop skills module is avoided.

Role	N/A
Organisation	Nautical College
Module	Marine Engineering - Electrical Distribution System
Your Feedback - Outcome 1	#N/A
Sub-Group 1.2 Response	#N/A
Your Feedback - Outcome 2	#N/A
Sub-Group 1.2 Response	#N/A
Your Feedback - Outcome 3	#N/A
Sub-Group 1.2 Response	#N/A
Your Feedback - Outcome 4	#N/A
Sub-Group 1.2 Response	#N/A
Your Feedback - Outcomes Above and Beyond	#N/A
Sub-Group 1.2 Response	#N/A
Your Proposed Outcome	This unit would benefit from a mandatory practical component of training which must not conflict with the existing syllabus of the Engineering workshop skills to avoid double credit for sea time remission.
Your Rationale for this outcome	Learners get remission from sea time from both the embedded practical work in the academic units and then also the workshop skills units they complete. Care should be taken to ensure that the learning activities are substantially different in order to avoid duplication.
Your Action for this outcome	Clear mapping of learning outcomes between workshop skills and academic content.
Sub-Group 1.2 Response	<p>Many thanks for your feedback, it has been noted.</p> <p>We agree with your suggestion and feel that this has been covered by our suggested actions throughout the module. However, we will ensure overlap with the workshop skills module is avoided.</p>

**No feedback requiring a response was received for the module Marine Engineering - Electrical Machines.**

**No feedback requiring a response was received for the module Marine Engineering - Electrical Power (Management Level).**

Role	Technical Manager	2nd Engineer	Vice Principal	Curriculum Manager
Organisation	National Shipping Company	International Shipping Company	Nautical College	Nautical College
Module	Marine Engineering - Propulsion	Marine Engineering - Propulsion	Marine Engineering - Propulsion	Marine Engineering - Propulsion
Your Feedback - Outcome 1	Both sections should be modernised to include new technologies as per sections 1.1 and 1.3 inclusive of operational principles of possible future technology such as salt water reactors. For section 1.6 items such as emmision abatement technology should be added, present and incoming technology ie scrubbers, scrs, 2 stage turbo charing, methonal/ammonia/hydrogen handling systems.	#N/A	#N/A	1.6 should be specific to include electronic engine systems and duel fuel arrangements
Sub-Group 1.2 Response	Many thanks for your feedback, it has been noted.  We believe that outcome 1.5 should not be modernised in the same way as 1.1 and 1.3 as we are looking to give an overview of modern propulsion systems and not the in depth operating principles, at this time. However, please be assured that modern propulsion systems are covered in the "Ship Construction" module.  We are in agreement with your suggestion to include emission abatement technology and future fuel handling systems at a schematic level. However, we have referred to this topic as "Emission Control Technology".	#N/A	#N/A	Many thanks for your feedback, it has been noted.  We are in agreement that electronic engine systems and duel fuel arrangements should be included. However, if we were to specify these two systems, it could cause the module to become outdated as technology advances. As such, we will keep the outcome generic.
Your Feedback - Outcome 2	Setion 2.4 include fault investigation on items such as PLCs, pulse drives etc. not just for ETOs. Section 2.5 should also include infromation on planned maintenace systems, classification notations (PMS), use of new technology such as in build vibration monitoring etc.	#N/A	#N/A	#N/A
Sub-Group 1.2 Response	Many thanks for your feedback, it has been noted.  For outcome 2.4, PLCs and pulse drives would already be covered in this outcome. However, not to the same level as an ETO.  We are in agreement with your suggestion for outcome 2.5 and have added this to our template.	#N/A	#N/A	#N/A
Your Feedback - Outcomes Above and Beyond	As per previous comments should include all new emission abatement technolgy not just scrubbers.	#N/A	#N/A	Nox Reduction should also be included with the Sox reduction
Sub-Group 1.2 Response	Many thanks for your feedback, we are in agreement and have amended the wording of this suggestion to reflect this, changing the suggestion to "Emission Control Technologies".	#N/A	#N/A	Many thanks for your feedback, we are in agreement and have included the impact on NOx/ SOx and other harmful emissions in outcome 2.5 and the additional requirement suggestion.
Your Proposed Outcome	We require to look at future proofing the outcome including hydrogen engines, methonal and Ammonia as a minimum inclusive of their support, safety and bunkering system.  On the vessels we see problem solving as quite a major issue therefore some emphasie requires to be placed on this especially on the electronic control side as not all vessels carry an ETO therefore all engineers should have some level of ETO traning.  In propulsion we also have to include items such as VFD and pod propulsion drives.  Ensure all required regulatory items are included such as green passports, EEXI, technical files etc.  Further emphasie and time should be placed on the practical/workshop practices for maintenance and repair of propulsion equipment this should be included in fault finding.  Consideration should be made on extending training time required to cover this.	Ensure other new technologies such as Fuel Cells, Battery Banks & NOx scrubbers are included. This area will need updating regularly as technologies come into that market.	There shoudl also be an embedded emphasis on green shipping and alternative fuels.	Nox Reduction should be included,

Your Rationale for this outcome	Comments made from observations of engineers working on board vessels.	Keep material relevant	We need to ensure that seafarers are cognisant of the environemnt in teh way that they think and operate as engineers.	Modern ship use this technology for engines and boilers. It also reinforces understanding of Emmision regulation
Your Action for this outcome	Inclusion of items in syllabus for college and sea time.	Periodic review based on industry news	Include a spcific learnign outcome about the impact of propulsion systems on the environment.	Add Nox Reduction techniques
Sub-Group 1.2 Response	<p>Many thanks for your feedback, it has been noted.</p> <p>We believe that we have effectively future proofed this module through our suggestions throughout the module to include a variety of propulsion types, including modern propulsion systems.</p> <p>We have attempted to cover any shortfall in problem solving skills by suggesting to "Include troubleshooting and practical problem solving once the fault is recognised." in the "Fault recognition" outcome.</p> <p>With regards to VFD and Pod Propulsion Drives, these will be covered where we have suggested to include a variety of propulsion types. However, we are also looking at the synergy between the Engineer and ETO syllabus to ensure these topics are appropriately covered.</p> <p>Regulatory requirements are covered within the "Legislation and Leadership" module</p>	<p>Many thanks for your feedback, it has been noted.</p> <p>We are in agreement and believe these factors have been covered through our suggested actions.</p> <p>In addition a mechanism to ensure the syllabus is kept up to date will be created upon completion of this programme.</p>	<p>Many thanks for your feedback, it has been noted.</p> <p>We are in agreement and believe these factors have been embedded throughout the syllabus modules in the appropriate places.</p>	<p>Many thanks for your feedback, we are in agreement and have included this within outcome 2.5.</p>
Your Proposed Outcome	#N/A	#N/A	#N/A	Future industry Focus on future fuel, autonomous shipping
Your Rational for this outcome	#N/A	#N/A	#N/A	This technology is what most cadets will eventually be sailing with. It provides basic understanding of the industry and it's needs
Your Action for this outcome	#N/A	#N/A	#N/A	Add new outcome- emerging technologies
Sub-Group 1.2 Response	#N/A	#N/A	#N/A	<p>Many thanks for your feedback, it has been noted.</p> <p>We are in agreement and believe these factors have been embedded throughout the syllabus modules in the appropriate places.</p>

**No feedback requiring a response was received for the module ETO - Principles of Power Electronics.**

**No feedback requiring a response was received for the module ETO - Applications of Power Electronics.**