

## Proposal to modernise the Methodology of Teaching, Assessment/ Examination

Marine Engineering - STCW III/2 CoC			
Competency/ Module: Marine Engineering: Management			
Knowledge, understanding and proficiency	Recommendation of working group regarding the outcome and objective.	Rationale	Action required
<b>Outcome1: Apply marine legislation and safety management systems to shipboard operations</b>	Amend	This module was created at a separate time to the equivalent Deck module, this has meant that the two modules cover the same topics but are structured differently. We are proposing to amend this outcome to be taught consistently with the same module in the Deck syllabus. Where outcomes are highlighted in red to indicate they should be removed, the action required column will detail where this outcome will now be covered. Please also consult the <a href="#">fifth group of consultation templates</a> , Deck 10a, 10b and 10c to see the suggested changes to the deck management modules as these will also apply to the equivalent outcomes in this module.	Remove outcome 1, this is now covered in other modules, each sub-outcome will specify where it is now covered.
<b>1.1 International regulations and regulatory bodies</b>	Amend	We are proposing to amend this outcome to be taught consistently with the same module in the Deck syllabus. Where outcomes are highlighted in red to indicate they should be removed, the action required column will detail where this outcome will now be covered.	Remove, International regulations and regulatory bodies are now covered in outcome 3.1.
<b>1.2 Application of regulations by flag states</b>	Amend	We are proposing to amend this outcome to be taught consistently with the same module in the Deck syllabus. Where outcomes are highlighted in red to indicate they should be removed, the	Remove, Application of regulations by flag states are now covered in outcome 3.3.

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		action required column will detail where this outcome will now be covered.	
1.3 Code of Safe Working Practices (COSWP)	Amend	We are proposing to amend this outcome to be taught consistently with the same module in the Deck syllabus. Where outcomes are highlighted in red to indicate they should be removed, the action required column will detail where this outcome will now be covered.	Remove, Code of Safe Working Practices (COSWP) is now covered in outcome 3.5.
1.4 Role of the Safety Officer	Amend	We are proposing to amend this outcome to be taught consistently with the same module in the Deck syllabus. Where outcomes are highlighted in red to indicate they should be removed, the action required column will detail where this outcome will now be covered.	Remove, Role of the Safety Officer is now covered in outcome 7.2 and in Engineering Module 10a. outcome 3.1.
1.5 Certification and certification bodies	Amend	We are proposing to amend this outcome to be taught consistently with the same module in the Deck syllabus. Where outcomes are highlighted in red to indicate they should be removed, the action required column will detail where this outcome will now be covered.	Remove, Certification and certification bodies are now covered in outcomes 3 and 4 (although not explicitly stated, this will be detailed the syllabus guidance document).
1.6 Classification Societies	Amend	We are proposing to amend this outcome to be taught consistently with the same module in the Deck syllabus. Where outcomes are highlighted in red to indicate they should be removed, the action required column will detail where this outcome will now be covered.	Remove, Classification Societies are now covered in outcome 3.4.
1.7 Survey and inspections processes	Amend	We are proposing to amend this outcome to be taught consistently with the same module in the Deck syllabus. Where outcomes are highlighted in red to indicate they should be removed, the action required column will detail where this outcome will now be covered.	Remove, Survey and inspections processes are now covered in outcomes 3 and 4 (although not explicitly stated, this will be detailed the syllabus guidance document).

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1.8 Dealing with non-compliance	Amend	We are proposing to amend this outcome to be taught consistently with the same module in the Deck syllabus. Where outcomes are highlighted in red to indicate they should be removed, the action required column will detail where this outcome will now be covered.	Remove, Dealing with non-compliance are now covered in outcomes 3 and 4 (although not explicitly stated, this will be detailed the syllabus guidance document).
Outcome 2: Analyse management theory and methods of system control in a shipboard context	Amend	This module was created at a separate time to the equivalent Deck module, this has meant that the two modules cover the same topics but are structured differently. We are proposing to amend this outcome to be taught consistently with the same module in the Deck syllabus. Where outcomes are highlighted in red to indicate they should be removed, the action required column will detail where this outcome will now be covered. Please also consult the <a href="#">fifth group of consultation templates</a> , Deck 10a, 10b and 10c to see the suggested changes to the deck management modules as these will also apply to the equivalent outcomes in this module.	Remove outcome 2, this is now covered in other modules, each sub-outcome will specify where it is now covered.
2.1 Quality assurance	Amend	We are proposing to amend this outcome to be taught consistently with the same module in the Deck syllabus. Where outcomes are highlighted in red to indicate they should be removed, the action required column will detail where this outcome will now be covered.	Remove, Quality assurance is now covered in outcome 7.1.
2.2 Application of the International Safety Management (ISM) code	Amend	We are proposing to amend this outcome to be taught consistently with the same module in the Deck syllabus. Where outcomes are highlighted in red to indicate they should be removed, the action required column will detail where this outcome will now be covered.	Remove, Application of the International Safety Management (ISM) code is now covered in outcome 4.1.

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2.3 Purpose and practice of auditing	Amend	We are proposing to amend this outcome to be taught consistently with the same module in the Deck syllabus. Where outcomes are highlighted in red to indicate they should be removed, the action required column will detail where this outcome will now be covered.	Remove, Purpose and practice of auditing is now covered in outcome 7.3.
2.4 Importance of accurate record keeping	Amend	We are proposing to amend this outcome to be taught consistently with the same module in the Deck syllabus. Where outcomes are highlighted in red to indicate they should be removed, the action required column will detail where this outcome will now be covered.	Remove, Importance of accurate record keeping is now covered in Engineering Module 10a. outcome 5.5.
2.5 Communication methods	Amend	We are proposing to amend this outcome to be taught consistently with the same module in the Deck syllabus. Where outcomes are highlighted in red to indicate they should be removed, the action required column will detail where this outcome will now be covered.	Remove, Communication methods are now covered in Engineering Module 10a. outcome 3.4.
2.6 Prepare a written report	Amend	We are proposing to amend this outcome to be taught consistently with the same module in the Deck syllabus. Where outcomes are highlighted in red to indicate they should be removed, the action required column will detail where this outcome will now be covered.	Remove, Preparing a written report is now covered in outcome 7.2.
Outcome 3: Evaluate the principles and application of UK legislation and international treaties applicable to the shipping industry.	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome, please see Deck module 10b (in the <a href="#">fifth set of consultation templates</a> ) to see suggested updates to this outcome. This is outcome 1 in the Deck module

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3.1 International law and its transition into UK national law applicable to the shipping industry	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome
3.2 United Nations Convention on the Law of the Sea	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome
3.3 Flag and port state legislation	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome
3.4 Classification societies	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome
3.5 Health, safety, human rights and employment legislation applicable to the shipping industry	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome
<b>Outcome 4: Analyse international requirements to ensure safety of ship, life, cargo and the protection of the marine environment.</b>	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome, please see Deck module 10b (in the <a href="#">fifth set of consultation templates</a> ) to see suggested updates to this outcome. This is outcome 2 in the Deck module
4.1 Requirements of international conventions; Safety of Life at Sea (SOLAS), Marine Pollution (MARPOL) and the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2007.	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome
4.2 Standard of Training Certification and Watchkeeping (STCW)	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome

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convention on seafarers and marine industry in general			
4.3 Maritime Labour Convention 2006	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome
<b>Outcome 5: Analyse personnel management theory as it applies to the role of a senior officer.</b>	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome, please see Deck module 10c (in the <a href="#">fifth set of consultation templates</a> ) to see suggested updates to this outcome. This is outcome 1 in the Deck module
5.1 Concepts of personnel management theory	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome
5.2 Methods of implementing management theory	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome
5.3 Methods of guidance and counselling, discipline and appraisal	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome
5.4 Methods of compliance with the requirements for response to bullying, harassment, Sexual Assault and Sexual Harassment (SASH)	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck. This has also been suggested to be added to the Deck module.	Add this outcome
5.5 Methods for ensuring Psychological Safety	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck. This has also been suggested to be added to the Deck module.	Add this outcome
<b>Outcome 6: Apply budgetary control in a shipboard context.</b>	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome, please see Deck module 10c (in the <a href="#">fifth set of consultation templates</a> ) to see suggested updates to this outcome. This is outcome 2 in the Deck module

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6.1 Budgetary control theory methods	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome
6.2 Basic financial information	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome
Outcome 7: Interpret and apply employment law, quality assurance legislation and safety management systems to shipboard operations.	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome, please see Deck module 10c (in the <a href="#">fifth set of consultation templates</a> ) to see suggested updates to this outcome. This is outcome 3 in the Deck module
7.1 Purpose of quality assurance, codes and guidance	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome
7.2 Methods of developing safety cultures and the role of safety management systems	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome
7.3 Auditing procedures	Add	This outcome is structured as it is in the equivalent Deck module, this module should be taught in the same way for Engineering and Deck.	Add this outcome
Proposal submitted by:	Any other outcomes for this competency, above and beyond STCW which would be needed due to use of modern technology and impact of future fuels onboard:		
	Objective	Reason Why	Action required
Cadet Training and modernisation working Group	Add the legal implications of innovative technologies, including autonomous vessels.	Legislation is constantly evolving regarding autonomy and innovative technologies, so we should ensure this syllabus is future-proofed.	Include “Awareness of the legal implications of vessels operating with innovative technologies” as a separate outcome.
Cadet Training and Modernisation working Group	Include facilitation of a learning journey, from law (bare minimum	Seafarers need to be able to:	Add an outcome to this module, covering the details of this proposal.



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	requirements), through shipboard policies/the SMS, and on towards safety culture, self-regulation and continuous improvement	<ul style="list-style-type: none"> <li>- Understand how to develop operating procedures that take the human element into consideration</li> <li>- Identify how policies and procedures can impact individuals differently</li> <li>- Identify the benefits of considering who will be using policies and procedures, as well as when, why and how, when designing or reviewing policies and procedures</li> <li>- Identify best practice in developing procedures e.g., consulting with staff it applies to, risk assessments etc</li> </ul> <p>Continually improve procedures e.g., reporting processes, toolbox talks</p>	
Cadet Training and Modernisation working Group	Include an outcome on Seafarer Wellbeing, Suicide Awareness, Equality, Diversity and Inclusion.	<p>Seafarers need to be able to:</p> <ul style="list-style-type: none"> <li>- Consider 'suicide alertness' as an alternative to going in to the complex issue of mental health. It is more practical.</li> <li>- Identify people thinking of suicide.</li> <li>- Overcome barriers in talking about suicide.</li> <li>- Identify reasons we may miss, dismiss or avoid suicide.</li> <li>- Practice using the 4-step model of suicide alertness: Tell, Ask, Listen and Keep-safe</li> <li>- Connect people at risk of suicide with further appropriate help.</li> <li>- Understand the managers role in promoting wellbeing, ensuring welfare (including fair employment) and in managing stress.</li> </ul>	<p>Add an outcome covering seafarer wellbeing and suicide awareness.</p> <p>This could be similar to a suicide alertness course such as SafeTALK.</p>
Cadet Training & Modernisation Working Group	Include Human Element Factors throughout the syllabus	To provide seafarers with a contextualised understanding of the Human Element in the maritime industry, showing how they can put	Raise awareness throughout the Cadet's training of the areas in which human element factors will have an impact. Recommendations on where



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		theory into practice in the work they carry out at sea.	this can be included have been noted throughout the entire syllabus. Not every template has Human Element Factor recommendations but please do add any you feel may have been missed.
Cadet Training & Modernisation Working Group	Include Data Science skills throughout the syllabus	Data Science Skills (Comprehension, Analysis, Presentation, etc...) are already required within much of the syllabus. A further, specific focus on these skills needs to be taught where relevant.	A specific topic will need to be introduced to improve Cadets' Data Science skills. Practical application of data science skills should be highlighted throughout the syllabus. Not every template has Data Science recommendations but please do add any you feel may have been missed.
Cadet Training & Modernisation Working Group	Ensure all outcomes are contextualised to help Cadets understand what they are learning in relation to what they will experience at sea.	While some outcomes are intrinsically linked to work carried out at sea, some need to be contextualised to show how they apply to work on board. Where this is the case, it is important to make sure Cadets clearly understand how the outcome relates to work at sea and it is essential to make sure that this context is given with reference to current and future seagoing technologies and practices.	Where outcomes do not specifically cover a topic which relates to work carried out at sea, more must be done to contextualise the outcome and make it relevant to the maritime industry, giving specific shipping examples of how the outcome may be applied in a modern shipping context. Not every template has contextualisation recommendations but please do add any you feel may have been missed.