Guidance for producing centre devised tasks for 2463



Qualification title:	Qualification number:
City & Guilds Certificate in Marine Construction System Engineering & Maintenance.	2463

Guidance relating to all centre devised units for this qualification

The following guidance applies to all of the centre devised units listed. Where individual units require specific guidance, this is provided in the next section; Unit specific guidance.

Generic guidance for units:

Task Setting:

Each task will consist of

- planning and preparation
- · carry out an appropriate risk assessment
- execution of the activity complying with current Health & Safety requirements and legislation
- inspection of the finished work
- · recording and reporting on the completed task.

Specific guidance for each unit is given below.

In order to ensure all the knowledge requirements are covered, additional underpinning knowledge questions will need to be completed by the candidate.

City & Guilds has produced a set of questions for each unit. These should be treated as a separate assessment task and the standard forms used (ie fronted by GF2/3 if written of GF1 or alternative if oral).

Forms of Evidence:

It is expected that the following forms of evidence will be produced for these units:

- Candidate report (fronted by GF2/3) and discussion with assessor (recorded on GF1).
- Inspection report form including marked up diagrams (centre devised form or GF1).
- Report, either on pre-prepared pro forma supplied by the assessor, or a written report and assessor checklist (fronted by GF2/3)
- Written report to include planning of the task, annotated illustrations of the process (e.g. drawings, photographs). (Any illustrations must clearly state what the candidate is doing/did) and completed job card and/or inspection report (fronted by GF2/3).
- Photographic evidence or actual work piece (fronted by GF2/3).



All candidate produced material should be fronted by GF2/3 and any evidence recorded by the assessor should be on GF1, or where appropriate a centre devised alternative, or media recording. Audio or video (media) recordings must be securely saved as evidence, clearly identified as relating to the candidate in question and accessible to the I&EV).

Conditions:

Practical tasks

The assignment should take place in the workshops and classrooms of a centre with full facilities for boat-building and/or marine engineering activities, with all the appropriate equipment, relevant tools and consumables for working with boat-building and/or marine engineering materials.

Underpinning knowledge questions

The short answer underpinning knowledge questions must all be taken under supervised conditions as closed-book tests and must not be completed as homework.

This means that all the activities will be completed with the assessor, or other designated supervisor, present.

Strict exam regulations (e.g. JCQ ICE) do not apply; it is envisaged that most candidates will take the short answer questions in their normal learning environment with their own tutor present. Alternatively, assessors may ask the questions orally and record individual candidate's responses on the assignment evidence recording form. In the event of a candidate failing the knowledge task, the whole task does not need to be re-taken. The assessor will need to make a judgement on the specific areas of knowledge/understanding that the candidate is weak and devise suitable alternative questions or tasks. It is expected that some feedback or reflection, further teaching or practice will be required so immediate resit is not appropriate.

Please note that the mark scheme is given for guidance purposes, and is not prescriptive. Assessor's discretion as to the quality of answer is required, and alternative, recognised and acceptable answers can be considered if they fall within the scope of the question.

Marking and grading criteria to be applied

Please refer to the Generic Grading Criteria (GM2) for the detailed descriptors for pass, merit and distinction.

The following will apply for the below units:

Performance of techniques/methods/skills (PT)

Practical application of knowledge and understanding (AKU)

Knowledge (K)

Understanding (U)



Unit specific guidance

This guidance relates to the individual unit only and is in addition to any generic guidance specified for it above.

204	Title: Yacht & Boatbuilding Assembly & sub-assembly	Graded: pass/merit/distinction	Sample assessment:
.0-		Graded: pass/mem/distinction	Jampie assessment.
	Task Setting:	all all of the Calles Comm	
	The equipment to be worked on during the assignment should in	3	
	An actual or simulated yacht & boatbuilding assembly and		
	 Suitable material of sufficient size and quality to demonst boatbuilding assembly & sub assembly components. 	rate marine industry standards and specifica	ations required to produce yacht and
	 Suitable tools and equipment of sufficient quality to demo boatbuilding assembly and sub assembly components. 	nstrate marine industry standards and spec	ifications required to produce yacht &
	Appropriate tasks will include		
	 Interpret drawings, data and specifications. 		
	 Utilise information from the specifications to create a prod 	luction schedule.	
	Carry out an appropriate risk assessment.		
	 Produce moulds and templates and/or a cutting list to ned 	essary for the production of assembly and	sub-assembly components.
	Select and use a range of marine materials/ fasteners/adl	nesives/bedding compounds as specified in	the unit's assessment criteria range.
	 Produce assembly and sub-assembly boat components u 		_
	Install assembly and sub-assembly components using ap	propriate bracing/securing techniques.	
	Finish assembly and sub-assembly boat components to components.		
	Check the assembly and sub-assembly meet the assessr		
	Reinstate the work area.		
	Tromotate the Work area.		



Unit	Unit details		
205	Title: Production of external boat components	Graded: pass/merit/distinction	Sample assessment: yes
	Task Setting:		
	The equipment to be worked on during the assignment must i	include one item from each of the following:	
	 An actual or simulated boat interior. 		
	 Representative marine industry material of sufficient s drawings/data/specifications and from those produce i 		terpret marine industry
	 Appropriate tasks will include: Interpret drawings, data and specifications to produce Utilise information from the specifications, joiner's rod, Carry out an appropriate risk assessment. Select and use a range of marine materials/fasteners/s Produce external boat components using appropriate Install external components using appropriate bracing. Finish external boat components to comply with the specifications to produce 	moulds and templates and/or a cutting list to cathering and templates and/or a cutting list to cathering and templates and/or a cutting list to cathering techniques.	reate a production schedule.



Unit	Unit details			
206	Title: Interior installation and fitting out of boats	Graded: pass/merit/distinction	Sample assessment:	
	Task Setting: The equipment to be worked on during the assignment should include	e the following:		
	Actual or simulated interior of a boat.			
	 Representative marine industry material of sufficient size and drawings, data and specifications as required for the Interior in 	•	to interpret marine industry	
	Appropriate hand tools power tools and woodworking machine	ery for the interior installation and fitting out of	boats.	
	Appropriate tasks will include: Interpret drawings, data and specifications. Utilise information from the specifications to create a production schedule. Carry out an appropriate risk assessment. Produce moulds and templates and/or a cutting list to necessary for the production of internal boat components. Select and use a range of marine materials/fasteners/adhesives/bedding compounds as specified in the unit's assessment criteria range. Produce components for the installation and fitting out of a boat using appropriate hand/power or machine tools. Install and finish interior boat components to comply with the specification. Check the installation of interior boat components meet the assessment criteria.			



Unit	Unit details		
207	Title: Composite manufacture for marine construction.	Graded: pass/merit/distinction	Sample assessment:
	Task Setting:		,
	The equipment to be worked on during the assignment should include	ude the following:	
	 Moulds and formers necessary for the manufacture of marin 	ne related composite components.	
 Representative resins, reinforcements and ancillary materials used in the marine industry to demonstrate the techniques marine industry drawings/data and specifications as required for the production marine related composite components. 			
	 Appropriate hand tools power tools and equipment for the v 	vorking and production of marine related of	composites.
	Appropriate tasks will include:		
	Interpret drawings, data and specifications.		
	Utilise information from the specifications to create a production schedule.		
	 Carry out an appropriate risk assessment. 		
	 Produce moulds and templates necessary for marine comp 	osite manufacture.	
	 Select and use a range of resins, reinforcements, marine massessment criteria range. 	aterials/fasteners/adhesives/bedding com	npounds as specified in the unit's
	 Select and use a range of tools and equipment necessary f 	or the application and consolidation of res	sins & reinforcements.
	 Produce boat components using composite manufacturing 	techniques.	
	 Apply releasing techniques to remove component from mou 	ıld.	
	 Test and check the component meet the assessment criteri 	a.	
	 Reinstate the work area. 		



Unit	Unit details			
208	Title: Servicing and Maintenance of Marine Engines	Graded: pass/merit/distinction	Sample assessment:	
	Task Setting:		,	
	The equipment/facilities to be available during the assignment s	should include the following:		
	 Appropriate tools and testing equipment. 			
	Suitable working examples of a range of marine engines.			
	A range of appropriate manufacturers specifications and data.			
	 A selection of appropriate consumable products (oils, oil/air filters, coolants). 			
	Appropriate tasks will include: Interpret drawings, data and specifications. Utilise information from the specifications to create a servicing/maintenance schedule. Carry out an appropriate risk assessment. Select and use a range of tools and testing equipment necessary for servicing and maintenance of marine engines. Carry out servicing and maintenance tasks as appropriate. Check tasks completed meet required specifications. Identify and record results of task carried out. Reinstate the work area.			



Unit Unit details			
209	Title: Servicing and maintenance of marine propulsion systems	Graded: pass/merit/distinction	Sample assessment:
	Task Setting:		
	 The equipment/facilities to be available during the assignment should include the following: Appropriate tools and testing equipment. Suitable working examples of a range of marine propulsion systems. A range of appropriate manufacturers specifications and data. A selection of appropriate consumable products. 		
	 A selection of appropriate consumable products. Appropriate tasks will include: Interpret drawings, data and specifications. Utilise information from the specifications to create a servicing/maintenance schedule. Carry out an appropriate risk assessment. Select and use a range of tools and testing equipment necessary for servicing and maintenance of marine propulsion systems. Carry out servicing and maintenance tasks as appropriate. Check tasks completed meet required specifications. Identify and record results of task carried out. Reinstate the work area. 		



Unit details				
Title: Maintaining electrical marine engineering equipment and systems	Graded: pass/merit/distinction	Sample assessment:		
Task Setting:		,		
The equipment/facilities to be available during the assignment should	l include the following:			
 Appropriate tools and testing equipment required for maintaining electrical marine engineering equipment and systems. 				
 Suitable working examples of a range of electrical marine engineering equipment and systems. 				
A range of appropriate manufacturers specifications and data.				
 A selection of appropriate replacement/ maintenance components (for example pumps, lighting, fuses, batteries, switches). 				
Carry out an appropriate risk assessment.		al marine engineering equipment		
	Title: Maintaining electrical marine engineering equipment and systems Task Setting: The equipment/facilities to be available during the assignment should Appropriate tools and testing equipment required for maintain Suitable working examples of a range of electrical marine eng A range of appropriate manufacturers specifications and data A selection of appropriate replacement/ maintenance components. Appropriate tasks will include: Interpret drawings, data and specifications. Utilise information from the specifications to create a marine of Carry out an appropriate risk assessment. Select and use a range of tools and testing equipment necess and systems. Carry out maintenance tasks as appropriate. Check tasks completed meet required specifications.	Title: Maintaining electrical marine engineering equipment and systems Task Setting: The equipment/facilities to be available during the assignment should include the following: • Appropriate tools and testing equipment required for maintaining electrical marine engineering equipment and systems. • A range of appropriate manufacturers specifications and data. • A selection of appropriate replacement/ maintenance components (for example pumps, lighting, fuses, batt Appropriate tasks will include: • Interpret drawings, data and specifications. • Utilise information from the specifications to create a marine electrical maintenance schedule. • Carry out an appropriate risk assessment. • Select and use a range of tools and testing equipment necessary for servicing and maintenance of electrical and systems. • Carry out maintenance tasks as appropriate. • Check tasks completed meet required specifications. • Identify and record results of task carried out.		



Unit	Unit details				
211	Title: Principles of marine electrical systems	Graded: pass/merit/distinction	Sample assessment:		
	Task Setting:	•			
	The equipment/facilities to be available during the assignment should include the following:				
	Appropriate tools and testing equipment required to	demonstrate the function of basic electrical circu	its and resistors.		
	 Suitable working examples of a range of electrical m 	arine circuitry.			
	A range of appropriate manufacturers specifications and data.				
	 A selection of appropriate components (for example breakers, fuses, resistors, capacitors, batteries, pcb's). 				
	Appropriate tasks will include: Interpret drawings, data and specifications. Utilise information from the specifications to create a marine electrical circuit. Carry out an appropriate risk assessment. Select and use a range of tools and testing equipment necessary for demonstrating the function of basic electrical circuits and resistors. Carry out relevant tasks associated with the principles of marine electrical systems. Check tasks completed meet required specifications. Identify and record results of task carried out. Reinstate the work area.				



Prepare surfaces and marine coatings Setting: quipment to be worked on during the assignment should include Actual or simulated surfaces. Painted and unpainted of (woo cement). Representative data and specifications used in the marine income.	•	Sample assessment: nposition, composite/FRP, ferro-		
quipment to be worked on during the assignment should include Actual or simulated surfaces. Painted and unpainted of (woo cement).	•	nposition, composite/FRP, ferro-		
Actual or simulated surfaces. Painted and unpainted of (woo cement).	•	nposition, composite/FRP, ferro-		
cement).	d, metals of ferrous and non ferrous cor	nposition, composite/FRP, ferro-		
Representative data and specifications used in the marine in				
Representative data and specifications does in the marine in	dustry as required for the preparation of	surfaces and marine coatings.		
 Representative degreasing solvents, chemicals and ancillary materials used in the marine industry as required for the preparation of surfaces and marine coatings. 				
Appropriate hand tools power tools and equipment for the wo	rking on and preparation of marine surfa	aces.		
Carry out an appropriate risk assessment. Select and use a range of preparation materials as specified	in the unit's assessment criteria range.	ine coatings.		
	Utilise information from the instructions, data and specificatio Carry out an appropriate risk assessment. Select and use a range of preparation materials as specified	Utilise information from the instructions, data and specifications to create a working schedule.		



3	Title: Apply Marine Coatings		Unit details		
	Title: Apply Marine Coatings	Graded: pass/merit/distinction	Sample assessment:		
	Task Setting:				
	The equipment to be worked on during the assignment should include	e the following:			
	 Actual or simulated surfaces. Painted and unpainted of (wood cement). 	d, metals of ferrous and non ferrous cor	mposition, composite/FRP, ferro-		
	 Representative data and specifications used in the marine ind 	ustry as required for the application of	marine coatings.		
	 Representative range of marine coatings and ancillary materia coatings. 	als used in the marine industry as requi	red for the application of marine		
	Appropriate application equipment for marine coatings.				
	 Appropriate tasks will include: Interpret instructions, data and specifications. Utilise information from the instructions, data and specification Carry out an appropriate risk assessment. Select, mix and prepare marine coatings as specified in the assessment are all the select and use a range of application tools and equipment redefined. Apply marine coatings as specified in the unit's assessment or the select and check the marine coatings meet the assessment critical coatings. 	ssessment criteria range. quired for marine coating operations. riteria range.			
	Reinstate the work area.				



Unit	Unit details		
304	Title: Construction and repair of hulls and boat structures	Graded: pass/merit/distinction	Sample assessment: yes
	Task Setting:		
	The equipment to be worked on during the assignment must include	one item from each of the following:	
	An actual or simulated hull/boat structure.		
	 Representative marine industry material of sufficient size to demonstrate the techniques utilised to interpret marine industry drawings/data/specifications and from those produce structural hull/boat components. 		
	Appropriate tasks will include: Interpret drawings, data and specifications to determine materials required and produce a cutting list. Utilise information from the drawings, data, specifications and/or a cutting list to create a production schedule. Carry out an appropriate risk assessment. Transfer interpreted data onto materials to produce moulds, templates or jigs as required. Produce structural hull/boat components using appropriate hand/power/machine tools. Select and use a range of marine fasteners/adhesives/bedding compounds as specified in the unit's assessment criteria range. Install structural hull/boat components using appropriate bracing/securing techniques. Finish structural hull/boat components to comply with the drawings/data/specification. Reinstate the work area.		



nit	Unit details				
5	Title: Producing and fitting structural boat components	Graded: pass/merit/distinction	Sample assessment:		
	Task Setting:				
	The equipment to be worked on during the assignment should in	clude the following:			
	An actual or simulated structural boat component.				
	 Representative marine industry material of sufficient size to demonstrate the techniques utilised to interpret marine industry drawings/data/specifications required for the production and fitting of structural boat components. 				
	Appropriate tasks will include: • Interpret drawings, data and specifications to produce joiner's rod and/or a cutting list.				
	 Utilise information from the specifications, joiner's rod and/or a cutting list to create a production schedule. 				
	Carry out an appropriate risk assessment.				
	 Produce structural sub-assembly and/or fit-out boat components using appropriate hand/power/machine tools. 				
	• Select and use a range of marine materials/fasteners/adhesives/bedding compounds as specified in the unit's assessment criteria range.				
	 Install structural sub-assembly and/or fit-out boat components using appropriate bracing/securing techniques. 				
	 Finish structural sub-assembly and/or fit-out boat components to comply with the specification. 				
	Reinstate the work area.				



Unit	Jnit details				
306	Title: Establishing reinstatement requirements when servicing, repairing and maintaining boats	Graded: pass/merit/distinction	Sample assessment:		
	Task Setting:				
	The equipment to be worked on during the assignment should include one item from each of the following: • An actual or simulated vessel.				
	Representative marine industry materials required to establish	h reinstatement requirements when servicing,	repairing and maintaining boats.		
	 Appropriate tasks will include: Utilise appropriate sources of information, inspections and tests to establish the reinstatement options available. Produce a reinstatement schedule taking into account the variables of time, materials, equipment costs and human resources. Carry out an appropriate risk assessment. 				
	 Carry out reinstatement procedures while ensuring that minimal damage is caused to the surrounding area and the structural integrity of th hull is not compromised. 				
	Disposal of any waste products taking into account current applicable legislation.				
	 Carry out any pre/post reinstatement recording procedures to authorities or government bodies. 	comply with the requirements laid down by m	nanufacturers, regulating		



Unit	Unit details				
307	Title: Fibre reinforced plastics technology for marine construction	Graded: pass/merit/distinction	Sample assessment:		
	Task Setting:		1		
	The equipment to be worked on during this assignment should i	nclude the following:			
	 Plugs, moulds and formers necessary for the production 	of fibre reinforced plastic marine componen	ts.		
	 Representative drawings specifications and data used in 	the marine industry for the production marin	ne related fibre reinforced components.		
	 Representative resins, catalysts, pigments, reinforcements marine related fibre reinforced components. 	nts, fillers and ancillary materials used in the	marine industry for the production		
	 Appropriate hand tools power tools and equipment for the 	e working and production of fibre reinforced	plastic marine components.		
	Appropriate tasks will include: Interpret drawings, data and specifications. Utilise information from the specifications to create a production schedule.				
	 Carry out an appropriate risk assessment. Produce plugs, moulds and templates necessary for the production of marine fibre reinforced plastic components. 				
	 Select, measure weigh, mix and use a range of resins, catalysts, pigments fillers and reinforcements. 				
	 Select and use a range of tools and equipment necessary for the application, consolidation forming and trimming of resins & reinforcements. 				
	 Produce boat components using fibre reinforced plastics techniques. 				
	Apply releasing techniques to remove FRP components from moulds.				
	Test and check that the components meet the assessment criteria.				
	Reinstate the work area.				



Unit details				
Title: Installation and repair of vessel services	Graded: pass/merit/distinction	Sample assessment:		
 Task Setting: The equipment/facilities to be available during the assignment should include the following: Appropriate tools and testing equipment. A range of appropriate manufacturers specifications and data. 				
 Suitable working examples of service equipment (black water system, grey water system, air conditioning). A selection of appropriate service/consumable components. 				
 Carry out an appropriate risk assessment. Select and use a range of tools and testing equipment necessition. 	essary for the installation and repair of ve			
	Title: Installation and repair of vessel services Task Setting: The equipment/facilities to be available during the assignment show Appropriate tools and testing equipment. A range of appropriate manufacturers specifications and date Suitable working examples of service equipment (black wate A selection of appropriate service/consumable components) Appropriate tasks will include: Interpret drawings, data and specifications. Utilise information from the specifications to create an install Carry out an appropriate risk assessment. Select and use a range of tools and testing equipment neces Carry out installation and repair of vessel services in according to the control of the control	Title: Installation and repair of vessel services Task Setting: The equipment/facilities to be available during the assignment should include the following: Appropriate tools and testing equipment. A range of appropriate manufacturers specifications and data. Suitable working examples of service equipment (black water system, grey water system, air condition. A selection of appropriate service/consumable components. Appropriate tasks will include: Interpret drawings, data and specifications. Utilise information from the specifications to create an installation/repair schedule. Carry out an appropriate risk assessment. Select and use a range of tools and testing equipment necessary for the installation and repair of vecarry out installation and repair of vessel services in accordance with manufacturer's specifications. Check tasks completed meet required specifications.		



Unit	Unit details				
309	Title: Installation and repair of marine engines	Graded: pass/merit/distinction	Sample assessment:		
	Task Setting:	Task Setting:			
	The equipment/facilities to be available during the assignment should	l include the following:			
	Appropriate tools and testing equipment.				
	Suitable working examples of a range of marine engines.				
	A range of appropriate manufacturers specifications and data.				
	A selection of appropriate installation and repair components.				
	Appropriate tasks will include: Interpret drawings, data and specifications. Utilise information from the specifications to create a servicing/maintenance schedule. Carry out an appropriate risk assessment. Select and use a range of tools and testing equipment necessary for installation and repair of marine engines. Carry out installation and repair tasks as appropriate. Check tasks completed meet required specifications. Identify and record results of task carried out.				



Unit	Unit details				
310	Title: Installation and repair of marine propulsion systems	Graded: pass/merit/distinction	Sample assessment:		
	Task Setting: The equipment/facilities to be available during the assignment should include the following: • Appropriate tools and testing equipment.				
	 Suitable working examples of a range of marine propulsion systems. 				
	 A range of appropriate manufacturers specifications and da 	-			
	A selection of appropriate consumable products.				
	 Appropriate tasks will include: Interpret drawings, data and specifications. Utilise information from the specifications to create a schede Carry out an appropriate risk assessment. Select and use a range of tools and testing equipment nece Carry out installation and repair tasks as appropriate. Check tasks completed meet required specifications. Identify and record results of the tasks carried out. 	·			
	- Identity and receive receive of the tasks carried out.				



Unit	Unit details				
311	Title: Installing electrical wiring support systems on boats	Graded: pass/merit/distinction	Sample assessment:		
	Task Setting:				
	The equipment/facilities to be available during the assignment shou	<u> </u>			
	Appropriate tools and testing equipment required for installing electrical wiring support systems on boats.				
	Suitable working examples of a range of electrical wiring sup	•			
	A range of appropriate manufacturers specifications and dat				
	 A selection of appropriate components for the installation of connectors, earthing devices, cable connectors). 	electrical wiring and support systems (for exan	npie terminai blocks, crimp		
	Appropriate tasks will include:				
	 Interpret drawings, data and specifications. 				
	 Utilise information from the specifications to create a schedule for the installation of electrical wiring support systems. 				
	Carry out an appropriate risk assessment.				
	Select and use a range of tools and testing equipment necessary for the installation of electrical wiring support systems.				
	Carry out the installation of electrical wiring support systems as appropriate. Observe that is a talked as a small standard as a six and the second standard a				
	Check that installation tasks completed meet required specifications. Identify and recently possible of tasks completed meet required specifications.				
	 Identify and record results of tasks carried out. Reinstate the work area. 				
	• Remsiate the work area.				



Unit	Unit details				
312	Title: Principles of marine electrical engineering	Graded: pass/merit/distinction	Sample assessment:		
	Task Setting:	,			
	The equipment/facilities to be available during the assignment s	hould include the following:			
	 Appropriate tools and testing equipment required to dem 	onstrate the principles of marine electrical e	ngineering.		
	 Suitable working examples of a range of electrical distrib 	oution, supply and storage systems.			
	A range of appropriate manufacturers specifications and data.				
	 A selection of appropriate components (for example shore cables, consumer units, engine driven alternators, split charge relays, battery demand operated plant, high energy LED luminaries). 				
	 Appropriate tasks will include: Interpret drawings, data and specifications. Utilise information from the specifications to demonstrate Carry out an appropriate risk assessment. Select and use a range of tools and testing equipment not Carry out relevant tasks associated with the principles of Check tasks completed meet required specifications. Identify and record results of task carried out. Reinstate the work area. 	ecessary for demonstrating the principles of	•		



Unit	Unit details				
313	Title: Principles of integrated marine electronic navigation systems	Graded: pass/merit/distinction	Sample assessment:		
	Task Setting:		<u> </u>		
	The equipment/facilities to be available during the assignment shou	ıld include the following:			
	 Appropriate tools and testing equipment required to demons 	strate the principles of integrated marine	electronic navigation systems.		
	 Suitable working examples of integrated marine electronic r 	Suitable working examples of integrated marine electronic navigation systems.			
	 A range of appropriate manufacturers specifications and da 	ta.			
	 A selection of appropriate integrated marine electronic navigation system components (for example bulkhead mounted instruments, chart plotters, depth instruments and fish finders, position finding systems, autopilots, satellite communications). 				
	 Appropriate tasks will include: Interpret drawings, data and specifications. Utilise information from the specifications to demonstrate th Carry out an appropriate risk assessment. Select and use a range of tools and testing equipment nece systems. Carry out relevant tasks associated with the principles of int Check tasks completed meet required specifications. Identify and record results of task carried out. 	ssary for demonstrating the principles of	integrated marine electronic navigation		



Unit details				
Title: Prepare surfaces and marine coatings	Graded: pass/merit/distinction	Sample assessment:		
Task Setting:				
	<u> </u>			
-	•	•		
 Representative degreasing solvent, chemicals and ancillary materials used in the marine industry as required for the preparation of surfaces and marine coatings. 				
 Appropriate hand tools power tools and equipment for the working on and preparation of marine surfaces. 				
 Carry out an appropriate risk assessment. Select and use a range of materials as specified in the Select and use a range of tools and equipment nece Select, mix and prepare marine coatings as specified. 	ne unit's assessment criteria range. ssary for the preparation of surfaces to take mar d in the assessment criteria range.	-		
	Title: Prepare surfaces and marine coatings Task Setting: The equipment to be worked on during this assignment show • Actual or simulated surfaces. Painted and unpainted • Representative data and specifications used in the m • Representative degreasing solvent, chemicals and a and marine coatings. • Appropriate hand tools power tools and equipment for Appropriate tasks will include: • Interpret instructions, data and specifications. • Utilise information from the instructions, data and specifications • Carry out an appropriate risk assessment. • Select and use a range of materials as specified in the • Select and use a range of tools and equipment neces • Select, mix and prepare marine coatings as specified • Test and check the surface preparation of surfaces a	Title: Prepare surfaces and marine coatings Task Setting: The equipment to be worked on during this assignment should include the following: • Actual or simulated surfaces. Painted and unpainted of (wood, metals ferrous and non ferrous, composite to the preparation of the marine coatings. • Appropriate tasks will include: • Interpret instructions, data and specifications. • Utilise information from the instructions, data and specifications to create a working schedule. • Carry out an appropriate risk assessment. • Select and use a range of materials as specified in the unit's assessment criteria range. • Select and use a range of tools and equipment necessary for the preparation of surfaces to take mare select, mix and prepare marine coatings as specified in the assessment criteria range. • Test and check the surface preparation of surfaces and the mixing of marine coatings meet the assessment.		



Unit	Unit details				
315	Title: Apply marine coatings	Graded: pass/merit/distinction	Sample assessment: yes		
	Task Setting:				
	The equipment to be worked on during this assignment should inclu	ide the following:			
	 Actual or simulated surfaces. Painted and unpainted of (wo 	•	•		
	 Representative data and specifications used in the marine in 		•		
	 Representative range of marine coatings and ancillary materials used in the marine industry as required for the application of marine coatings. 				
	 Appropriate hand or spray application equipment for marine 	coatings.			
	Appropriate tasks will include: Interpret instructions, data and specifications. Utilise information from the instructions, data and specifications to create a working schedule. Carry out an appropriate risk assessment. Select mix and prepare marine coatings as specified in the assessment criteria range. Select and use a range of tools and application equipment for marine coatings. Apply marine coatings as specified in the unit's assessment criteria range. Test and check the marine coatings meet the assessment criteria. Reinstate the work area.				