Competency Standards for Caribbean Vocational Qualifications (CVQ)
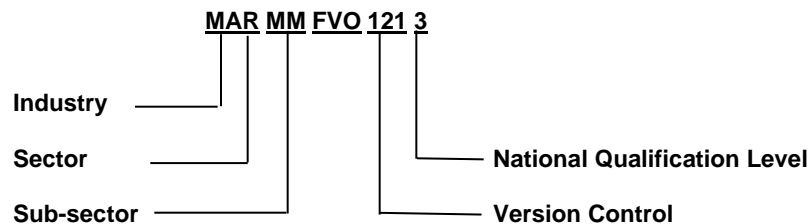
MARMMFVO1213   CVQ Level 3 in Fishing Vessel Operations

Unit Number	Unit Title	Requirement
UA09603	Perform vessel operations	Mandatory
UA09703	Perform first aid	Mandatory
UA09803	Respond to emergencies on board a vessel	Mandatory
UA09903	Maintain social responsibility at sea	Mandatory
UA10003	Maintain safety of life at sea	Mandatory
UA10103	Respond to weather conditions and reports	Mandatory
UA10203	Use maritime communication methods	Mandatory
UA10303	Maintain security awareness at sea	Mandatory
UA10403	Perform search and rescue (SAR) operations	Mandatory
UA10503	Maintain vessel	Mandatory
UA10603	Navigate vessel	Mandatory
UA10703	Operate a vessel	Mandatory
UA10803	Prepare for a fishing trip	Mandatory
UA10903	Prepare, operate, maintain and recover fishing gear	Mandatory
UA11003	Land, stow and care for catch	Mandatory
UA11103	Contribute to sustainable fishing practices	Mandatory

To obtain a Caribbean Vocational Qualification (CVQ) all Mandatory Units must be achieved.

Legend to Unit Code

MAR MM FVO 121 3

Industry

Sector

Sub-sector

National Qualification Level

Version Control

Key: MAR – Maritime; Merchant Marine; Fishing Vessel Operations

Country of origin
Barbados

Qualification Overview

Who is the qualification for?

This qualification is designed to provide training, assessment and recognised certification for persons in the fisheries sector. Candidates must be able to carry out vessel operations, including dealing with onboard emergencies, maritime communications and navigation, search and rescue operations and handling fishing gear

Where could it be used?

This qualification is aimed at persons who have some knowledge of seamanship, and are autonomous and responsible enough to perform tasks independently and as part of a team. The base skills are such that progression can be made to higher levels within the maritime world of work. The competencies are for persons who are likely to be in roles where, for example, their duties include:

- Operating boats
- Operating sport fishing vessels
- Fishing

Jobs within the occupational area

Relevant occupations include:

- Seaman
- Boat operators
- Sport fishing vessel operator
- Fisherman

Occupational Standards can also be used to:

- Prepare job descriptions and specifications
- Determine recruitment criteria
- Appraise staff performance objectively
- Identify skill and training gaps and needs
- Conduct labour market analyses
- Develop curriculum
- Assess the effectiveness of training programmes
- Determine compensation and rewards

The benefits of acquiring the CVQ to candidates

- Provide a basis for articulation and accreditation
- Provides a broad-based preparation for employment
- Is an alternative route to further/higher education
- Complements and has parallel standing with academic qualifications
- Provides enhanced employability and higher earning potential
- Facilitates an apprenticeship with actual work experience
- Equips candidates with the knowledge, skills and attitudes for the workplace
- Past work experience and skills can count towards achieving the CVQ
- Allows for continuity whereby if a candidate cannot complete the CVQ at a centre or school, they can continue at another approved centre
- CVQ's are recognised qualifications and facilitates free movement of labour throughout CARICOM

The benefits of the CVQ to employers

- Provides a larger cadre of skilled employees/candidates to choose from
- Reduces cost of recruiting and selecting the ideal job candidate
- Reduces cost for training workers
- Ensures higher levels of productivity

The benefits of the CVQ to the Caribbean region:

- Produces a higher skilled workforce that is ready to adapt to ever-changing global demands
- Provides greater access for persons to achieve higher qualifications
- Contributes to the region's human resource capacity development

UA09603   Perform vessel operations

Unit Descriptor:

> This unit describes the knowledge, skills and attitudes required to apply practical seamanship skills to operate any kind vessel on the water. It includes vessel operations such as anchoring, mooring, securing and fuelling vessels.

ELEMENT	PERFORMANCE CRITERIA

Candidates must be able to:

1.	Prepare to operate a vessel	1.1	Select the correct type and quantity of equipment and materials for the operation.
		1.2	Prepare equipment and vessel in accordance with standard operating procedures and maritime regulations.
		1.3	Confirm that equipment is in working order and that preparations for the voyage are complete.
		1.4	Identify and report any faults or deficiencies in equipment and materials to the relevant personnel.
		1.5	Confirm sufficiency of water, fuel and food supplies for the journey according to maritime regulations.
2.	Use and maintain ropes and wires	2.1	Identify various types of ropes used in the maritime industry.
		2.2	Create and use the appropriate types of knots, lashings and whippings when required, while operating vessel.
		2.3	Splice ropes according to their correct application.
		2.4	Whip rope ends as required to maintain condition while operating vessel, according to standard operating procedures.

2.5   Confirm and apply the breaking strain and safe work loads of rope and wire while operating a vessel.

2.6   Identify and record wear and damage to rope and wire, according to standard operating procedures.

2.7   Maintain and store rope and wire according to standard operating procedures.

3.   Secure vessel at anchor

3.1   Prepare anchor and equipment for use according to standard operating procedures and regulations.

3.2   Maintain control of cable within safe operating limits during anchoring operations.

3.3   Secure anchor and equipment on completion of anchoring operations and for anticipated forecast conditions.

3.4   Keep anchoring area free of loose ropes, wires and debris during operations.

4.   Secure vessel at berth

4.1   Handle mooring lines and associated equipment during operations.

4.2   Keep mooring lines free of loose ropes, wires and debris throughout operations.

4.3   Apply rope stoppers to transfer mooring lines when securing vessel.

4.4   Secure vessel and monitor lines at all times during mooring operation.

4.5   Maintain tension on ropes at an appropriate level for each stage based on the nature of the operation according to standard operating procedures.

4.6   Monitor tension on shore-power leads and other umbilicals according to standard operating procedures.

5.	Lash and secure stores, cargo and access ways	5.1	Inspect, maintain and store lashing equipment after use according to standard operating procedures.
		5.2	Stow cargo according to regulations.
		5.3	Lash and secure cargo according to regulations and standard operating procedures.
		5.4	Check and secure accommodation spaces and personnel facilities on vessel according to standard operating procedures.
6.	Conduct fuelling and oil transfer operations	6.1	Follow occupational safety and health procedures when refuelling and transferring oil.
		6.2	Establish safety boundary for fuelling and transferring operations, according to standard operating procedures.
		6.3	Deploy spill prevention systems according to regulations.
		6.4	Measure and report tank levels and pre- and post-fuelling and transfer operations.
		6.5	Perform fuelling and transferring operations safely according to industry requirements.
		6.6	Secure associated valves and pipelines on completion to avoid spillage.
		6.7	Take appropriate action to handle incidents during fuelling and transferring operations according to standard operating procedures and regulatory requirements.
		6.8	Maintain effective communication with team members when fuelling and transferring operations to ensure the safety and integrity of vessel and crew.

RANGE STATEMENT

All range statements must be assessed:

1. **Equipment** may include but not limited to:

   - Communication
   - Mechanical
   - Electrical
   - Safety

2. **Lashing equipment** may include but not limited to:

   - Chains
   - Ropes
   - Webbing
   - Wires
   - Tension device

3. **Incidents** may include but not limited to:

   - Communication failure
   - Leakage
   - Overflow

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are knots, splices, hitches and how to make and use them according to maritime protocols.

2. What are lashings and whippings and how to make them according to maritime protocols.

3. What tools are used to make knots, splices and hitches.

4. How to handle, maintain, care for, repair and store ropes, lines.

5. Why it is important to store ropes and lines according to maritime industry standards.

6. What are ropes and lines and their various uses.

7. What damaged ropes and lines look like.

8. What are the types of anchors used in seaman operations.

9. What are safe anchoring procedures and how to follow them.

10. What is mooring.

11. What are safe mooring procedures and how to follow them.

12. How to rig safety lines.

13. How to make and keep records for all vessel operations.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates have to prove that they can carry out **all** of the elements, meeting **all** the performance criteria, range and underpinning knowledge **on more than one occasion**. This evidence must come from a real working environment.

(2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used**, except in exceptional circumstances where natural work evidence is unlikely to occur.

UA09703   Perform first aid

Unit Descriptor:

> This unit describes the knowledge, skills and attitudes required to provide basic first aid response and basic life support. It also deals with management of the casualty and the emergency/incident.

ELEMENT	**PERFORMANCE CRITERIA**

Candidates must be able to:

1.	Plan for initial first aid response	1.1	Interpret work activity and first aid documentation to ensure accuracy of preparation of the response.
		1.2	Identify and address potential risks, hazards and environmental issues through control measures.
		1.3	Select and wear correct personal protective equipment for the response.
		1.4	Select and maintain communication systems with other personnel during the response.
		1.5	Coordinate activities with others prior to, during and after the response.
		1.6	Record, report and replenish first aid resources according to organisational requirements.
2.	Assess the situation	2.1	Identify hazards and risks according to organisational procedures.
		2.2	Minimise risks and implement control measures in accordance with organisational procedures.
		2.3	Monitor the casualty's vital signs and physical conditions within the scope of the individual providing the initial response.
3.	Apply first aid	3.1	Provide first aid management within the scope of the individual and according to industry requirements.

3.2   Make the casualty comfortable and reassure them in a calm, sensitive manner.

3.3   Obtain and use first aid resources and equipment as required to control hazards and risks and attend to the casualty.

3.4   Monitor the casualty's condition and provide an accurate, timely response in accordance with effective first aid principles and workplace procedures.

3.5   Seek relevant emergency services in a timely manner according to standard operating procedures.

3.6   Finalise management of the casualty according to organisational procedures.

4.   Record and report incident   4.1   Document the details of the casualty's physical condition, situation and response to management.

4.2   Convey details of the casualty's condition and management activities to relevant emergency services while maintaining sensitivity to the casualty and surroundings.

4.3   Secure the personal effects of the casualty and give to relevant personnel.

4.4   Prepare and submit relevant documentation in an appropriate and timely manner, presenting all relevant facts according to established procedures.

4.5   Document and inform relevant persons of the use of first aid resources in accordance with organisational procedures.

5.   Clean up

5.1   Recover, clean, inspect/test, replace and store first aid equipment, where practical and as required.

5.2   Dispose of medical waste in accordance with industry and environmental requirements.

5.3

Report equipment faults to the appropriate persons.

5.4   Conduct appropriate debriefing or evaluation exercises.

RANGE STATEMENT

All range statements must be assessed:

1. **First aid** may include but not limited to:

   - Cardiopulmonary resuscitation (CPR) Automated external defibrillator (AED)
   - Bleeding control
   - Basic patient management
   - Stabilising fractures

2. **Risks** may include but not limited to:

   - Electrical
   - Manual
   - Substances
   - Environmental
   - Biological
   - Injury
   - Proximity
   - Vehicles

3. **Hazards** may include but not limited to:

   - Physical
   - Biological
   - Chemical
   - Ergonomic

4. **First aid resources and equipment** may include but not limited to:

   - Defibrillation units
   - First aid kit
   - Auto-injector
   - Ventilation chamber/inhaler
   - Resuscitation mask
   - Personal protective equipment
   - Stretcher
   - Communication equipment

5. **Emergency services** may include but not limited to:

   - Coast guard
   - Ambulance
   - Fire
   - Police

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are the social/legal issues surrounding the provision of first aid.

2. What are the risks and hazards associated with first aid response.

3. When and how to use defibrillation units.

4. What are the basic occupational health and safety requirements for providing first aid.

5. What are the basic principles and concepts underlying the practice of first aid and how to carry out the associated functions.

6. How, when and which emergency services to call.

7. How to plan an appropriate first aid response.

8. How to use communication, information technology and literacy skills to function in an emergency environment.

9. How and when to prepare the appropriate documentation.

10. What is medical waste and how to dispose of it.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates have to prove that they can carry out **all** of the elements, meeting **all** the performance criteria, range and underpinning knowledge **on more than one occasion**. This evidence must come from a real working environment.

(2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used**, except in exceptional circumstances where natural work evidence is unlikely to occur.

UA09803   **Respond to emergencies on board a vessel**

Unit Descriptor:	This unit describes the knowledge, skills and attitudes required to deal with various types of emergencies on board vessels. It covers preventing fires and controlling damage to vessels from emergencies which would cause sinking or loss of life. It takes into account fire risk assessments and damage control assessments at sea.

ELEMENT	PERFORMANCE CRITERIA

Candidates must be able to:

1. Prepare for emergencies	1.1	Plan appropriate procedures to deal with emergency situations in accordance with regulatory requirements.
	1.2	Identify appropriate strategies and plans to mitigate and minimise loss based on standard operating procedures and contingency plans.
	1.3	Check the serviceability of communication equipment according to manufacturers' instructions and regulatory requirements.
	1.4	Check supplies to ensure usability in an emergency according to national, international regulations and standard operating procedures.
	1.5	Change or repair faulty equipment according to standard operating procedures.
2. Respond to emergencies on board a vessel	2.1	Identify the nature of the emergency and take initial action in accordance with vessel operating procedures.
	2.2	Raise the alarm according to standard operating procedures.
	2.3	Take appropriate action to respond to the emergency in accordance with emergency and organisational procedures.
	2.4	Communicate accurate and relevant information about the emergency to the appropriate personnel according to organisational procedures.

		2.5	Maintain operating conditions of life saving, fire-fighting equipment and other safety equipment.
		2.6	Assess first aid requirements and provide appropriate treatment according to maritime guidelines.
3.	Implement and follow emergency evacuation procedures	3.1	Execute the necessary emergency procedures according to standard operating procedures and personal area of responsibility.
		3.2	Take relevant action where abandon ship command is identified according to level of responsibility.
		3.3	Prepare and launch survival craft in accordance with standard operating procedures.
		3.4	Obtain and use survival equipment according to manufacturer's instructions.
		3.5	Use survival techniques which maximise the safety of self and others in accordance with recommended procedures.
		3.6	Identify, select and use the appropriate contingency plan according to organisational procedures.
		3.7	Rescue and transport any casualties using methods appropriate for their condition.
4.	Maintain stability and control damage to vessel	4.1	Identify and confirm the type of damage to the vessel.
		4.2	Check stability and watertight integrity of vessel according to standard operating procedures.
		4.3	Take swift and relevant action to minimise the effects of damage to the vessel if stability of the vessel is compromised.
		4.4	Repair damage to the vessel in an appropriate manner according to regulations and standard operating procedures.

5.	Compile reports on emergencies on a vessel	5.1	Maintain documentation and records of activities related to emergency situations, according to legislation and standard operating procedures.
		5.2	Follow standard operating procedures to record essential and reliable data during emergency situations.
		5.3	Complete documentation on emergencies according to standard operating procedures and legislative requirements for reporting emergencies.
		5.4	Keep records and documents in a safe and secure environment in accordance with standard operating procedures.

RANGE STATEMENT

All range statements must be assessed:

1. **Emergencies** may include but not limited to:

   - Fire
   - Flood, ingress of water
   - Collision/damage to structure
   - Drastic change in atmospheric conditions
   - Damage to engines
   - Man overboard
   - Grounding of vessel

2. **Communication equipment** may include but not limited to:

   - Light signals e.g. flares, mirrors and other light sources
   - Radios
   - Flags

3. **Supplies** may include but not limited to:

   - First aid kit
   - Food and water
   - Tarpaulin
   - Personal protective equipment
   - Raft/boat
   - Fuel
   - Personal medical supplies e.g. insulin
   - Fire extinguisher

4. **Emergency procedures** may include but not limited to:

   - Evacuation e.g. abandon ship, transfer of patients
   - Shut down
   - Isolation and muster procedures
   - Environmental e.g. oil spillages, pollution and natural e.g. sargassum seaweed

5. **Survival equipment** may include but not limited to:

   - Life jacket/flotation devices
   - Life boat
   - Signalling equipment
   - Firefighting equipment

6. **Survival techniques** may include but not limited to:

   - Swimming
   - Don survival suits in time allowed by Standards of Training Certification and Watchkeeping (STCW) protocol
   - Moving and working as a team

7. **Damage** may include but not limited to:

   - Electrical
   - Structural
   - Integrity of hull

8. **Personnel** may include but not limited to:

   - Coast guard
   - Owner of vessel
   - Captain and crew

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are the various types of emergencies which may occur on board.

2. What are emergency procedures and how to comply with them.

3. What is a fire risk assessment and how to perform one.

4. How to identify and prevent fire hazards on board.

5. What are the different types of fire extinguishers and how to use them.

6. What are the various classes of fire and how to fight each class of fire.

7. What are vessel contingency plans and how to comply with them.

8. How to raise various types of alarms associated with different types of emergencies.

9. How to complete reports on emergencies on board vessels.

10. How to use communication systems and effective forms of communication during emergencies.

11. How to respond to emergencies on board vessels.

12. How to communicate information on emergencies and in what manner.

13. What information to communicate during emergencies.

14. What fire precautions to use on board vessels.

15. What personal protective equipment to use when responding to emergencies.

16. What are damage control procedures and requirements of the maritime industry.

17. How to combat hull damage.

18. How to maintain and use equipment and tools to fight shipboard emergencies.

19. What is SOLAS and how to comply with it when responding to emergencies on board vessels.

20. How to check and maintain stability of the vessel.

21. What effect flooding and damage has on the stability of the vessel.

22. What are the types and uses of life saving appliances normally carried on vessels.

23. When to implement emergency procedures.

24. What are environmental emergencies.

25. How to respond to environmental emergencies such as oil spillages and pollution.

26. How to launch a survival raft.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates have to prove that they can carry out **all** of the elements, meeting **all** the performance criteria, range and underpinning knowledge **on more than one occasion**. This evidence must come from a real working environment.

(2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
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The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

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UA09903   **Maintain social responsibility at sea**

Unit Descriptor:	This unit describes the knowledge, skills and attitudes required to maintain social responsibility at sea. It covers maritime employment along with health, safety and environmental legislation, policies, protocols and safety practices to be adhered to whilst at sea. Accident prevention is also addressed along with protection of the marine environment.

ELEMENT	PERFORMANCE CRITERIA

Candidates must be able to:

1.	Work safely aboard vessel	1.1	Confirm that work tasks are carried out according to maritime legislation and standard operating procedures.
		1.2	Carry out work, following safe working practices and procedures.
		1.3	Comply with health and safety requirements in accordance with occupational safety and health legislation and maritime legislation.
		1.4	Report incidents, accidents and any injuries which may occur whilst working.
		1.5	Comply with all emergency procedures for dealing with emergencies at sea.
2.	Practise sustainable conservation environmental methods	2.1	Identify hazards to the marine environment.
		2.2	Identify environmentally friendly measures used on board vessel.
		2.3	Reduce the amount of waste generated on board vessel.
		2.4	Dispose of waste according to maritime/environmental legislation and protocols.
		2.5	Take appropriate steps to minimise and prevent marine pollution.

3.	Follow rules and regulations from local, regional and international maritime laws	3.1	Comply with maritime legislation and other relevant laws of the country to ensure the safety of all maritime users and the environment.
		3.2	Carry out measures that will protect other maritime users in accordance with collision regulations.
		3.3	Render assistance to other vessels at sea in cases of emergencies in accordance with maritime legislation and national laws.
		3.4	Report any illegal marine activities to the relevant authorities.

RANGE STATEMENT

All range statements must be assessed:

1. **Maritime legislation** may include but not limited to:

   - Local, regional and international codes for fisheries and boating
   - Relevant merchant shipping codes
   - Safety of Life at Sea (SOLAS) Convention
   - Environmental legislation
   - Criminal codes
   - Local coastal zone management acts and regulations
   - Relevant marine legislation

2. **Safe working practices** may include but not limited to:

   - Use of personal protective equipment
   - Ergonomic
   - Safe use of tools and equipment
   - Risk assessments

3. **Emergency procedures** may include but not limited to:

   - Fire action plan
   - Man overboard plan
   - Damage control plan
   - Sounding alarms
   - Search and rescue (SAR)

4. **Emergencies** may include but not limited to:

   - Accidents
   - Fire
   - Ingress of water
   - Medical
   - Man overboard

5. **Waste** may include but not limited to:

   - Human waste/sewage
   - Ballast water
   - Oils/maintenance waste
   - Lost/abandoned fishing gear

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are your social responsibilities at sea.

2. How to maintain social responsibilities at sea.

3. What are the different laws, rules, conventions and regulations governing working at sea and how to interpret and comply with them.

4. Why it is important to comply with maritime legislation.

5. What are your rights and responsibilities under employment laws for working at sea.

6. Where you can find information on your rights and responsibilities.

7. What are the safety practices and procedures to be followed whilst working at sea.

8. What are the different types of emergencies which can occur at sea.

9. What are the emergency procedures to be followed in the event of an emergency at sea.

10. How to report hazards, incidents, accidents and emergencies whilst working at sea.

11. What is your responsibility for protecting the marine environment.

12. What is pollution and the ways in which the marine environment can become polluted.

13. Which methods can be used to preserve the marine environment.

14. What are the different types of waste generated at sea and how to dispose of each responsibly.

15. What are the circumstances under which to render assistance to other vessels in cases of emergencies.

16. How to render assistance to other vessels in cases of emergencies.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

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(3) Context of Assessment

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The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

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UA10003   **Maintain safety of life at sea**

Unit Descriptor:	This unit describes the knowledge, skills and attitudes required to maintain the safety of life at sea. It addresses hazards and risks experienced whilst working at sea and how to appropriately mitigate these.

ELEMENT	PERFORMANCE CRITERIA

Candidates must be able to:

1.	Perform a risk assessment prior to starting work	1.1	Inspect the workspace/vessel in accordance with standard operating procedures.
		1.2	Identify hazards within the workspace according to standard operating procedures and within scope of responsibility.
		1.3	Identify risks associated with the hazards in the workspace.
		1.4	Mitigate risks using appropriate control measures according to standard operating procedures.
		1.5	Report hazards which cannot be appropriately controlled to relevant personnel.
2.	Adhere to health and safety regulations	2.1	Don, check and operate personal protective equipment according to manufacturer's instructions and workplace procedures.
		2.2	Observe and adhere to safety signage on board vessel.
		2.3	Inspect and maintain life-saving equipment according to manufacturer's instructions.
		2.4	Work in accordance with instructions and standard operating procedures and relevant maritime legislation.

		2.5	Take appropriate actions to maintain safety of self during vessel operations.
		2.6	Report malaise, sickness and any unsafe working practices which are experienced or observed on board vessel to appropriate personnel.
		2.7	Report accidents, and near misses to appropriate personnel in accordance with standard operating procedures.
3.	Maintain safety during emergencies	3.1	Comply with legislation, rules and regulations governing dealing with emergencies at sea.
		3.2	Identify muster point/means of escape in the event of an emergency.
		3.3	Follow relevant instructions, emergency plans and procedures during emergencies.

RANGE STATEMENT

All range statements must be assessed:

1. **Workspace:** may include but not limited to:

    - Deck
    - Engine room

2. **Hazards** may include but not limited to:

    - Safety
    - Biological
    - Physical
    - Chemical
    - Work organisation

3. **Personnel** may include but not limited to:

    - Colleague
    - Coast guard
    - Captain and crew

4. **Personal protective equipment** may include but not limited to:

    - Overalls/coveralls
    - Gloves
    - Glasses/goggles
    - Ear protection
    - Safety boots/shoes
    - Visor/face shield
    - Safety harness

5. **Life-saving equipment** may include but not limited to:

    - Alarms
    - Rafts
    - Life vests
    - Fire extinguishers

6. **Vessel operations** may include but not limited to:

    - Mooring/anchoring
    - Maintenance
    - Manual handling
    - Bunkering/fuelling

7. **Sickness** may include but not limited to:

    - Seasickness
    - Medical emergency

8. **Emergencies** may include but not limited to:

    - Fire
    - Ingress of water
    - Collision
    - Medical

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. How to comply with local, regional and international codes, conventions and regulations at sea.

2. What hazards are present on-board vessels and at sea.

3. How to appropriately mitigate hazards on board vessels and at sea.

4. What is personal protective equipment and how to wear and use it correctly.

5. What are the types of life saving equipment on-board vessels.

6. Why it is important to maintain vessel and safety equipment in good working condition.

7. What is manual handling and ergonomics.

8. What are safe and unsafe work practices.

9. What are accidents and emergencies and how to prevent, deal with, report and manage such whilst at sea.

10. What are the types of sicknesses experienced at sea and how to treat and deal with such sicknesses.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates have to prove that they can carry out **all** of the elements, meeting **all** the performance criteria, range and underpinning knowledge **on more than one occasion**. This evidence must come from a real working environment.

(2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used**, except in exceptional circumstances where natural work evidence is unlikely to occur.

UA10103   Respond to weather conditions and reports

Unit Descriptor:

> This unit describes the knowledge, skills and attitudes required to observe and act on weather conditions and the weather. It deals with observing various weather conditions and acting on these appropriately.

ELEMENT	PERFORMANCE CRITERIA

Candidates must be able to:

1.	Observe weather conditions and weather reports	1.1	Monitor weather conditions and obtain weather reports for the day.
		1.2	Interpret weather bulletins in accordance with meteorological procedures.
		1.3	Interpret symbols in weather reports according to maritime procedures.
2.	Act on weather conditions and weather reports	2.1	Assess weather conditions and reports before and during the voyage.
		2.2	Prepare for the potential impact of weather events on boating operations.
		2.3	Take action to respond to weather forecasts according to standard operating procedures.

RANGE STATEMENT

All range statements must be assessed:

1. **Weather conditions** may include but not limited to:

   - Sea swells, currents and tides
   - Temperature
   - High winds/gusts
   - Sunshine
   - Rain
   - Haze
   - Air drafts, upward and downward
   - Barometric pressure

2. **Weather reports** may include but not limited to:

   - Electronic
   - Hardcopy

3. **Weather bulletins** may include but not limited to:

   - Report
   - Forecast
   - Outlook

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. How to access weather information inclusive of bulletins, reports, warnings and advisories.

2. What are weather bulletins and how to interpret them.

3. What are weather reports.

4. How to read, interpret and apply barometric pressure readings.

5. What are the different symbols used in weather reports and their respective meanings.

6. What is the potential impact of severe weather conditions, such as tropical waves/storms and hurricanes on boating operations.

7. How to adequately prepare for the impact of a tropical wave, storm or hurricane.

8. Why it is important to monitor all weather conditions and reports prior to going out to sea as well as during the voyage.

9. Why it is important to follow all warnings/advisories given to sea-craft operators.

10. Why it is important to check weather forecasts for the day(s), week ahead.

11. How to adequately and appropriately prepare for changes in weather conditions before and during the voyage.

12. What actions to take to minimise the impact of adverse weather conditions whilst at sea.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates have to prove that they can carry out **all** of the elements, meeting **all** the performance criteria, range and underpinning knowledge **on more than one occasion**. This evidence must come from a real working environment.

(2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used**, except in exceptional circumstances where natural work evidence is unlikely to occur.

UA10203   **Use maritime communication methods**

Unit Descriptor:	This unit describes the knowledge, skills and attitudes required to communicate appropriately and effectively at sea using different communication methods. It also covers the recording of communications according to maritime/industry requirements.

ELEMENT	PERFORMANCE CRITERIA

Candidates must be able to:

ELEMENT	PERFORMANCE CRITERIA
1. Monitor the serviceability of communication equipment	1.1 Comply with requirements and regulations to operate communication equipment and accessories at sea.
	1.2 Check the functionality of communication equipment and accessories, alarms and indicators while making and receiving transmissions, according to manufacturer's specifications.
	1.3 Check documentation relating to communication equipment and accessories status and take corrective action if any faults are identified according to standard operating procedures.
	1.4 Report observed defects and failures promptly to relevant personnel.
	1.5 Follow up on malfunction reports in accordance with standard operating procedures.
2. Transmit and receive communications at sea	2.1 Comply with operating criteria and legal limitations to operate communication equipment and accessories.
	2.2 Operate communication equipment and accessories according to manufacturer's instructions when communicating at sea according to regulations and standard operating procedures.
	2.3 Select transceiver and use appropriate frequency/channel according to manufacturer's instructions and regulations.

		2.4	Use appropriate equipment to send and receive different types of messages according to regulations and standard operating procedures.
		2.5	Identify and use standard marine communication phrases when communicating at sea.
3.	Communicate using maritime jargon	3.1	Identify and interpret urgency calls in compliance with industry guidelines.
		3.2	Use pro-words to communicate with other maritime users according to regulations and industry guidelines.
		3.3	Respond to distress signals in accordance with regulations and standard operating procedures.
		3.4	Use the phonetic alphabet when communicating with other maritime users in compliance with industry guidelines.
4.	Complete documentation	4.1	Record communications at sea according to industry guidelines and regulations.
		4.2	Retain records of communications at sea according to requirements.

RANGE STATEMENT

All range statements must be assessed:

1. **Communication equipment and accessories** may include but not limited to:

    - Voice (cell phones, satellite phones, radios, radiotelephones, digital selective calling)
    - Data (ASIS, messaging equipment, facsimile)
    - Visual (flags and signals)
    - Antennae, cables, tuners (automatic and manual)

2. **Communicating** may include but not limited to:

    - Routine
    - Emergency

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are the regulations and requirements for operating communication equipment at sea.

2. How to communicate clearly and effectively using various communication methods.

3. What are the principles and features of the maritime mobile service and how to use them.

4. What are the features of the Global Maritime Distress Safety System (GMDSS) radio communications) and how to use them.

5. What are distress frequencies, why they should be protected and when distress signals are transmitted.

6. What is the Maritime Safety Information in the GMDSS.

7. How to locate and use signals in the GMDSS.

8. How different weather conditions and locations can affect radio and visual communication signals.

9. What are the requirements and regulations for recording and retaining records of communication and how to do so at sea.

10. How to identify international code/signalling flags.

11. How to communicate clearly and effectively using various communication methods.

12. What international code single letters mean.

13. How to determine when signals are safety, urgent or distress signals.

14. What is very high frequency (VHF) radio communications.

15. How to operate radio equipment in order to transmit and receive VHF communications.

16. What are the regulations and requirements for reporting difficulties in transmitting information using radio equipment.

17. How to operate VHF and GMDSS radio equipment for both routine and emergency communication.

18. How to act on messages relevant to the safety of the vessel, persons on board and the protection of the marine environment.

19. What are the regulations and obligatory procedures and practices for the use of radiotelephones on vessels.

20. How to identify the meaning of IMO Standard Marine Communication Phrases used when operating radio equipment.

21. What is the International Phonetic Alphabet and its relevance.

22. How to transmit and receive communication by visual methods.

23. How to use visual safety, urgency and distress signals.

24. How to be compliant with international regulations and mandatory procedures for communications.

25. What are pro-words (I spell, Affirmative, Negative, Over, Out, Say Again, Communication of Figures).

26. What are SOS signs (lights, sounds).

27. What are the urgency calls (pan pan, securite, mayday).

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates have to prove that they can carry out **all** of the elements, meeting **all** the performance criteria, range and underpinning knowledge **on more than one occasion**. This evidence must come from a real working environment.

(2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

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UA10303	**Maintain security awareness at sea**

Unit Descriptor:	This unit describes the knowledge, skills and attitudes required to maintain security and safety awareness at sea. It focuses on security and safety threats and how to deal with such in accordance with maritime laws and regulations.

ELEMENT	**PERFORMANCE CRITERIA**

Candidates must be able to:

1. Maintain due care and attention on board vessel	1.1 Identify security and safety threats and risks which can impact the marine environment.
	1.2 Minimise security and safety threats and risks according to standard operating procedures and regulatory requirements.
	1.3 Perform tasks in a manner which does not pose a security or safety threat to others at sea or the marine environment according to regulatory requirements.
	1.4 Comply with all maritime laws to maintain security and safety awareness at sea.
2. Follow security protocols	2.1 Take appropriate measures to reduce maritime security and safety threats and risks.
	2.2 Report security and safety threats and risks to appropriate personnel using security equipment on the vessel according to standard operating procedures and regulatory requirements.
	2.3 Document security and safety threats and risks in an appropriate manner according to standard operating procedures.

RANGE STATEMENT

All range statements must be assessed:

1. **Security and safety equipment** may include but not limited to:

   - Ship Security Reporting System (SSRS)
   - Automatic Identification System (AIS)
   - Emergency equipment (fire, drowning, water on board)

2. **Personnel** may include but not limited to:

   - Coast Guard
   - Search and rescue (SAR) personnel

3. **Security and safety threats and risks** may include but not limited to:

   - Criminal activity (human trafficking, illegal cargo, breaches of ship security)
   - Pollution (dangerous cargo and chemicals)
   - Cyber crime

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What is the Safety of Life at Sea (SOLAS).

2. What is the international code for security of ships and ports (ISPS).

3. What are the maritime emergency procedures to be followed in the event of a security threat.

4. Why it is important to remain alert to the presence of security threats.

5. What are the different types of security threats in the maritime sector.

6. How to maintain security and safety awareness at sea.

7. How to respond to security and safety threats at sea.

8. How to raise the alarm for security breaches.

9. What are the different types of safety systems used on vessels.

10. How to operate different types of safety systems.

11. How to maintain security and safety equipment in good working condition.

12. What is cybersecurity and how does it affect vessels at sea.

13. What are cyber threats and how to identify and respond to such appropriately.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates have to prove that they can carry out **all** of the elements, meeting **all** the performance criteria, range and underpinning knowledge **on more than one occasion**. This evidence must come from a real working environment.

(2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

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Simulation **should not be used**, except in exceptional circumstances where natural work evidence is unlikely to occur.

UA10403   **Perform search and rescue (SAR) operations**

Unit Descriptor:	This unit describes the knowledge, skills and attitudes required to perform search and rescue operations. It covers the planning and execution of search and rescue operations, inclusive of vessel to vessel communications and sea to shore communications during search and rescue operations.

ELEMENT	PERFORMANCE CRITERIA

Candidates must be able to:

1.	Plan search and rescue operations	1.1	Obtain all available information regarding the incident including the estimated location, nature of incident and casualties.
		1.2	Observe weather conditions affecting the incident according to standard operating procedures.
		1.3	Establish the datum point to commence search and rescue operations.
		1.4	Confirm the lines of authority when directing search and rescue operations.
		1.5	Communicate with relevant personnel in a prompt, clear and correct manner using the appropriate maritime communication methods.
		1.6	Relay to relevant personnel the type of search and rescue plan being used.
		1.7	Brief relevant personnel involved as to the required equipment based on the requirements of the search and rescue operations.
		1.8	Confirm with relevant personnel that the serviceability of all equipment has been checked according to standard operating procedures.
2.	Execute search and rescue plan	2.1	Relay updated information to relevant personnel relating to the progress of the search and rescue team according to standard operating procedures.

2.2 Confirm the location and condition of the vessel/casualty with relevant personnel using maritime communication methods.

2.3 Verify that aid was provided according to standard operating procedures.

2.4 Confirm that the transfer of the casualty was conducted in a safe and correct manner according to standard operating procedures.

2.5 Provide emergency medical services to the casualty where required according to standard operating procedures.

2.6 Close the search and rescue mission according to standard operating procedures.

3. Document search and rescue operations

3.1 Compile information relating to search and rescue operations conducted.

3.2 Complete appropriate shipboard documentation/reports according to standard operating procedures.

RANGE STATEMENT

All range statements must be assessed:

1. **Search and rescue operations** may include but not limited to:

    -   Missing persons
    -   Missing vessels

2. **Relevant personnel** may include but not limited to:

    -   Search and rescue party
    -   Persons involved in incident on vessel
    -   Coast guard personnel

3. **Maritime communication methods** may include but not limited to:

    -   GMDSS
    -   VHF FM radio
    -   International distress signals

4. **Equipment** may include but not limited to:

    -   Safety equipment
    -   Personal protective equipment
    -   Rescue equipment

5. **Documentation/report:**

    -   Written
    -   Oral

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. How to obtain all available information regarding the incident including the estimated location, nature of incident and casualties.

2. How to observe weather conditions affecting the incident according to standard operating procedures.

3. What are search and rescue operations and how to perform them.

4. Which communication methods to use during SAR operations.

5. Why it is important to communicate clearly and promptly during search and rescue operations.

6. What are the different types of search and rescue operations.

7. What is the International Convention for the Safety of Life at Sea (SOLAS) and the SAR Convention of 1979 and how do these affect search and rescue operations.

8. How to obtain information/reports on search and rescue operations.

9. How to determine and plot the search area.

10. What are hazards and how to identify them.

11. What is effective communication during search and rescue operations.

12. How to effectively plan, execute and close search and rescue operations.

13. What are the rescue procedures of the maritime industry.

14. What are the maritime communication methods used during search and rescue operations.

15. How to determine the location of the vessel/casualties during search and rescue operations.

16. How to establish appropriate search and rescue plans.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates have to prove that they can carry out **all** of the elements, meeting **all** the performance criteria, range and underpinning knowledge **on more than one occasion**. This evidence must come from a real working environment.

(2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used**, except in exceptional circumstances where natural work evidence is unlikely to occur.

UA10503   Maintain vessel

Unit Descriptor:	This unit describes the knowledge, skills and attitudes required to carry out routine maintenance activities on inboard motor and remote steering systems.

ELEMENT	**PERFORMANCE CRITERIA**

Candidates must be able to:

1. Prepare for routine maintenance activities	1.1 Wear suitable personal protective equipment for the task when carrying out maintenance activities.
	1.2 Comply with the maintenance schedule according to manufacturer's specifications.
	1.3 Select tools, equipment and materials for maintenance activities to be completed as per manufacturer's specifications.
2. Conduct routine maintenance activities	2.1 Perform routine maintenance activities on vessel equipment using appropriate techniques and procedures.
	2.2 Complete routine maintenance activities on ancillary equipment according to manufacturer's instructions.
	2.3 Perform maintenance activities in the specified sequence and within agreed timescale according to workplace procedures.
3. Restore work area	3.1 Clean tools and equipment according to manufacturer's instructions.
	3.2 Return all tools and equipment to the appropriate location in accordance with manufacturer's specifications.
	3.3 Keep work area in a safe and tidy condition according to workplace procedures.
	3.4 Dispose of waste according to environmental regulations and workplace and industry procedures.

3.5   Complete relevant records in accordance
       with workplace procedures.

RANGE STATEMENT

All range statements must be assessed:

1. **Personal protective equipment** may include but not limited to:

   - Footwear
   - Clothing
   - Hand protection
   - Eye protection
   - Ear protection
   - Head protection

2. **Vessel equipment** may include but not limited to:

   - Inboard motor/outboard motor
   - Propulsion
   - Electrical
   - Electronic
   - Hydraulic
   - Fire fighting
   - Ancillary

3. **Waste** may include but not limited to:

   - Oils, oily water, sludge
   - Fluids/chemicals
   - Plastics
   - Metals
   - Equipment
   - Fishing gear
   - Ropes, cables, lines
   - Batteries
   - Wastewater/sewage water
   - Paints and solvents

4. **Records** may include but not limited to:

   - Service log
   - Report

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are the specific safety practices and procedures that need to be observed when carrying out routine maintenance on vessel equipment.

2. What are the isolation procedures that apply to maintenance activities for the specific equipment being worked on.

3. What equipment is required for both personal protection and protection of the equipment and vessel/craft.

4. What are the hazards associated with carrying out maintenance activities on vessel equipment and how they can be minimised.

5. What is the basic principle of operation of the inboard, outboard r and combination inboard and outboard motors.

6. What are the different types of vessel mechanical and ancillary equipment, peripheral devices, and their servicing requirements.

7. What are the methods of checking that components are fit for purpose.

8. How to identify defects in inboard, outboard and combination inboard outboard motors.

9. How to make sensory checks by sight, sound, smell and touch.

10. What are the required adjustments to maintain the equipment at operational standards.

11. What are the different types of pipes and hoses that are used and what to check during maintenance activities.

12. Why it is important to ensure that the equipment is maintained to the prescribed standard of cleanliness.

13. How to prepare maintenance schedule and records.

14. What are the problems that can occur whilst carrying out maintenance activities and how they can be avoided.

15. What are the procedures to be adopted for the safe disposal of waste of all types of materials.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates have to prove that they can carry out **all** of the elements, meeting **all** the performance criteria, range and underpinning knowledge **on more than one occasion**. This evidence must come from a real working environment.

(2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used**, except in exceptional circumstances where natural work evidence is unlikely to occur.

UA10603   **Navigate vessel**

Unit Descriptor:	This unit describes the knowledge, skills and attitudes required to navigate a vessel at sea. It covers basic planning, the adjustment of routes at sea and vessel position fixing.

ELEMENT	**PERFORMANCE CRITERIA**

Candidates must be able to:

1.	Maintain navigational charts, nautical publications and related documentation	1.1	Store and maintain navigational charts and related documentation in accordance with standard operating procedures.
		1.2	Establish an inventory of navigational charts and related documents according to standard operating procedures.
		1.3	Keep and apply chart correction records to ensure charts in use reflect the up-to-date information.
		1.4	Order navigational charts and related documentation from relevant sources to ensure up-to-date documentation is available when planning journeys.
2.	Plan route	2.1	Identify navigational hazards relevant to the proposed journey with the use of relevant navigational charts and related documents.
		2.2	Prepare and file a sail plan with the appropriate shore based personnel according to standard operating procedures.
		2.3	Plot the route for the journey as per operational instructions and navigational principles taking into account the identified navigational hazards.
		2.4	Identify and record critical points along the proposed journey according to standard operating procedures.

		2.5	Develop action plans to deal with the identified critical points in accordance with navigational principles and practices and standard operating procedures.
		2.6	Develop and record strategies for dealing with potential navigational contingencies and problems that may occur along the planned route according to standard operating procedures.
3.	Fix vessel position	3.1	Select the primary position fixing method in accordance with prevailing conditions.
		3.2	Make appropriate allowance for random, instrument, system and data errors according to operating procedures.
		3.3	Verify and adjust the primary position regularly using appropriate methods according to industry practices.
		3.4	Perform checks and tests of navigation fixing instruments and systems according to standard operating procedures and manufacturers' specifications.
		3.5	Record the position of the vessel according to standard operating procedures and regulations.
4.	Document and report planned route	4.1	Record and report the planned route for the journey according to regulations and standard operating procedure.
		4.2	Record plans and strategies for dealing with critical situations and contingencies.
5.	Maintain and adjust vessel route	5.1	Make the required alterations to the vessel's course and speed, taking various factors into account according to standard operating procedures.
		5.2	Comply with international and national regulations when altering the vessel course and speed to prevent collisions.

5.3   Take appropriate measures to minimise the risk to persons on board while maintaining and adjusting the route.

5.4   Make correct and relevant signals for navigational maneuvers in accordance with regulations and standard operating procedures.

5.5   Operate the vessel in a manner which ensures that the operational limits of vessel propulsion, steering, power systems and stability are not exceeded.

RANGE STATEMENT

All range statements must be assessed:

1. **Navigational hazards** may include but not limited to:

    -   Faulty or broken navigational aids
    -   Drifting hazards e.g. wreckage/debris
    -   Closed route/diversions
    -   Waste

2. **Position fixing methods** may include but not limited to:

    -   Landmarks
    -   Compass
    -   Global Positioning System (GPS)
    -   Dead reckoning
    -   Charts, scales and symbols
    -   Global Maritime Distress and Safety System (GMDSS)
    -   Electronic Chart Display Information Systems (ECDIS)
    -   Automatic Indication System (AIS)
    -   Radar

3. **Vessel** may include but not limited to:

    -   Fishing vessel
    -   Speedboat
    -   Recreational vessel

4. **Various factors** may include but not limited to:

    -   Sea condition
    -   Proximity to other vessels
    -   Navigational hazards

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are the relevant sections of the IMO STCW 95 Convention and Code and AMSA Marine Orders applicable for vessels being operated and how are they applied.

2. What are the most common methods of time measurement and how to use them.

3. What are the methods used to approximate the shape of the earth and how to use them.

4. What are the procedures for fixing a celestial object's position with reference to a horizon-based system of coordinates and how to use them.

5. What are the procedures for converting one set of coordinates to another and how to use them.

6. What are the common astronomical phenomena as described in the Nautical Almanac, including the phases of the moon, twilight, solar eclipses, lunar eclipses, visible sunrise/sunset, tabulated times for sunrise/sunset, theoretical sunrise/sunset, and how these help you on the sea.

7. What are the procedures for the calculation of the height of tide for a given time at any place listed using tide tables and how to use them.

8. What are the procedures for the use of Nautical Almanac data and information when planning and conducting a voyage, including the calculation of errors due to common navigational approximations and how to use them.

9. What verbal communication skills are required when planning and navigating a passage.

10. How to read and interpret charts and other published information relevant to planning and navigating a passage.

11. How to read and interpret instrument and equipment readings and indications relevant to planning and navigating a passage.

12. How to complete the required operational records.

13. How to work safely and collaboratively with others when planning and navigating a passage.

14. How to select and use relevant equipment when planning and navigating a passage as per standard operating procedures.

15. How to identify faulty equipment and readings and take appropriate action and what are the standard operating procedures for doing so.

16. How to identify problems that may be experienced when planning and navigating a passage and how to take appropriate action.

17. How to adapt to differences in vessels, equipment and related standard operating procedures.

18. How to plan and navigate a passage for a vessel.

19. How to comply with Collision Regulations (COLREG) when navigating a vessel at sea.

20. What are the special techniques required for navigation in high latitudes and how to use them.

21. What are the maritime communication techniques, including the issuing of helm and engine orders and tug communications and how to use them.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates have to prove that they can carry out **all** of the elements, meeting **all** the performance criteria, range and underpinning knowledge **on more than one occasion**. This evidence must come from a real working environment.

(2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

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Simulation **should not be used**, except in exceptional circumstances where natural work evidence is unlikely to occur.

UA10703   Operate a vessel

Unit Descriptor:

> This unit describes the knowledge, skills and attitudes required to handle and maneuver a vessel under various conditions at sea.

ELEMENT	PERFORMANCE CRITERIA

Candidates must be able to:

1.	Maneuver vessel	1.1	Navigate to safely progress the operation and keep the vessel in safe water.
		1.2	Maintain vessel heading within acceptable limits as per requirements of maneuver.
		1.3	Control alterations of heading and power, smoothly.
		1.4	Communicate clearly and concisely according to standard operating procedures and regulations.
		1.5	Select a suitable mode of steering for the maneuver according to prevailing conditions and situations and according to standard operating procedures.
		1.6	Use constant rate of turn techniques to achieve constant radius turns during maneuver(s).
		1.7	Control vessel propulsion as required to progress the operation and complement helm movements according to standard operating procedures.
		1.8	Remain within safe operating limits of vessel propulsion and steering systems, as required by standard operating procedures and regulations.
		1.9	Coordinate anchoring and berthing operations in accordance with established procedures.

		1.10	Use appropriate inter-vessel communications during vessel operations according to maritime standards.
		1.11	Organise adequate resources prior to and during vessel operations.
2.	Handle vessel when under way	2.1	Evaluate vessel performance during stages of the journey and assess the implications for the handling of the vessel.
		2.2	Make appropriate alterations to vessel heading and power in response to assessment of the stages of the journey.
		2.3	Apply special handling techniques during rescues or adverse sea and weather conditions, according to industry requirements and standard operating procedures.
		2.4	Maneuver vessel and comply with regulations in maritime industry to maintain safety and avoid collisions.
3.	Navigate vessel during adverse conditions	3.1	Identify impending adverse weather conditions and evaluate implications for vessel operation.
		3.2	Make preparations and take required precautions to minimise risk and damage to vessel and personnel according to standard operating procedures and regulations.
		3.3	Adjust maneuver(s) to allow for safe progress of the operation and maintain the vessel in safe water according to standard operating procedures.
		3.4	Maintain the vessel hearing within acceptable limits according to requirements during stages of the journey.
		3.5	Use special handling techniques, when necessary under heavy weather conditions.

RANGE STATEMENT

All range statements must be assessed:

1. **Manoeuver(s)** may include but not limited to:

    -   Berthing/unberthing
    -   Mooring/anchoring
    -   Shallow water, rivers, restricted water, ocean
    -   Heavy traffic areas
    -   Propulsion systems
    -   Clearing a fouled anchor
    -   Stopping distance
    -   Head reach
    -   Weather

2. **Vessel(s)** may include but not limited to:

    -   Fishing vessel
    -   Speedboat
    -   Recreational vessel

3. **Stages of the journey** may include but not limited to

    -   Shallow/restricted water
    -   Tidal conditions
    -   Other vessels passing
    -   Water temperature
    -   Weather conditions

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are the applicable sections of the IMO STCW 95 Convention and Code and local regulations which cover the handling and maneuvering of vessels.

2. What are the relevant OH&S legislation and policies which govern the handling and maneuvering of a vessel.

3. What are the methods for controlling vessel speed and direction.

4. What are the procedures for turning a vessel in various situations during constant rate of turn techniques, turning a vessel short turn around and procedures for the use of rate of turn indicators for the safe handling of the vessel and how to apply these procedures.

5. What are the maneuvering and engine characteristics for various types of vessels including stopping distances and turning circles at various draughts, speeds and loading and how to identify them.

6. What are the effects of deadweight, draught, trim speed and under kneel clearance on turning circles and stopping distances.

7. What are the effects of squat and shallow water on a vessel's handling.

8. What are the effects on vessel handling of wind, currents and bottom topography.

9. What are the maneuvering problems for vessels and the appropriate action and solutions for these.

10. What are the maneuvering procedures in heavy traffic areas and how to apply them.

11. What are the procedures for berthing and anchoring and how to apply them.

    - Preparations to be made for on deck anchoring

    - Functions and operations of windlass and capstan

    - Methods of clearing a fouled anchor or hawse

    - Methods of hanging off an anchor

    - Methods of hanging off an anchor

    - Methods of slipping a cable

    - Causes and signs of anchor dragging

    - Arrangements for stowing and securing anchors and cables

    - Care and maintenance of anchors, cables and anchor lockers

12. What are the procedures for the rigging and maintenance of personnel and pilot passageways during vessel maneuvers and how to apply them.

13. What are the maritime communication techniques, including the issuing of helm and engine orders and tug communications.

14. How to collect, manage and interpret information required for safe navigation of the voyage.

15. How to determine the procedures to allow for interaction with passing vessels.

16. How to operate the vessel in accordance with standard operating procedures and manufacturer's specifications.

17. How to apply and comply with rules of the road to avoid collision.

EVIDENCE GUIDE

For assessment purposes:

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UA10803   **Prepare for a fishing trip**

Unit Descriptor:	This unit describes the knowledge, skills and attitudes required to prepare for a fishing trip. It covers the required checks for the vessel prior to departure and the necessary equipment for the trip and any possible emergencies which may occur.

ELEMENT	**PERFORMANCE CRITERIA**

Candidates must be able to:

1. Perform pre-fishing activities	1.1	Obtain weather reports and weather bulletins to determine expected conditions whilst on the fishing trip according to industry practices.
	1.2	Select a suitable fishing method and gear depending on the species to be captured and duration of the trip.
	1.3	Obtain, check and test all safety, fishing and required personal protective equipment for the fishing trip according to regulations and standard operating procedures.
	1.4	Identify the species to capture depending on the climatic and environmental condition, region and seasonal availability.
	1.5	Equip the fishing boats with appropriate consumables for the trip according to standard operating procedures.
	1.6	Prepare fishing materials according to industry practices.
	1.7	Load and unload vessel equipment and supplies using appropriate methods according to standard operating procedures.
	1.8	Inspect the vessel prior to departure according to industry practice and standard operating procedures.
2. Perform post fishing activities	2.1	Conduct post-trip inspection to assess the safety and satisfactory condition of the vessel, tools, and equipment according to standard operating procedures.

2.2.   Maintain engines, fishing gear, and other on-board equipment by carrying out minor repairs according to standard operating procedures and manufacturers' specifications.

2.3   Confirm that decks are clear and clean at all times according to standard operating procedures.

2.4   Complete and submit trip logs and records according to regulations and industry practice.

2.5   Communicate issues, concerns or occurrences to appropriate personnel as required.

RANGE STATEMENT

All range statements must be assessed:

1. **Weather reports** may include but not limited to:

   - Electronic
   - Hard copy

2. **Weather bulletins** may include but not limited to:

   - Report
   - Forecast
   - Outlook

3. **Consumables** may include but not limited to:

   - Food
   - Ice
   - Bait
   - Salt
   - Cleaning solutions
   - Fuels
   - Oils

4. **Fishing materials** may include but not limited to:

   - Fishing gear
   - Safety equipment
   - Food provisions
   - Cleaning/sanitation
   - Fuel

5. **Inspect** may include but not limited to:

   - Vessel
   - Equipment
   - Navigational aids
   - Motors
   - Materials and tools
   - Electrical systems

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. How to plan and prepare for a fishing trip.

2. Whom to inform of the fishing trip and how to appropriately complete trip logs and records regarding the fishing trip.

3. What tools, equipment, supplies are required for the fishing trip.

4. What are the safety and standard operating procedures governing the fuelling of vessels.

5. What are the different types of vessels used for fishing trips.

6. What is boat construction and stability.

7. Why it is important to check and inspect the vessel and all required equipment for the trip prior to departure and upon return.

8. What is the load capacity of the vessel being used on the fishing trip.

9. How to safely load and unload supplies and consumables to and from vessels.

10. Why it is important to have the appropriate safety and fishing gear for the particular type of trip.

11. What are the manufacturer's specifications for the vessel's engine, tools and equipment on board vessels.

12. How to test and maintain the required safety and personal protective equipment and fishing gear for the fishing trip.

13. How to inspect vessels to ensure they are fit and in good condition for a voyage to sea.

14. How to obtain vessel approval prior to the fishing trip.

15. What are considered minor repairs and how to perform them to the vessel.

16. What are the laws of the sea governing territorial waters and fishing outside of borders.

17. What are the laws governing the capture of banned catch.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

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(2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

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- Written evidence
- Witness testimony
- Professional discussion

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(3) Context of Assessment

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UA10903   **Prepare, operate, maintain and recover fishing gear**

Unit Descriptor:	This unit describes the knowledge, skills and attitudes required to prepare and operate fishing gear. It covers selecting, shaping, assembly rigging and repairing fishing gear according to gear and manufacturer's specifications.

ELEMENT	**PERFORMANCE CRITERIA**

Candidates must be able to:

1.	Prepare fishing gear	1.1	Use effective safe working practices according to relevant legislation and industry standards.
		1.2	Prepare work area and materials in accordance with industry standards and requirements.
		1.3	Select materials to prepare gear to meet fishing vessel requirements.
		1.4	Select and assemble sections in accordance with manufacturer's instructions.
		1.5	Shape gear parts in accordance with manufacturer's instructions.
		1.6	Join the parts and attach fittings according to manufacturer's instructions.
		1.7	Rig fishing gear in accordance with instructions and the vessel's capabilities in compliance with legislation.
		1.8	Monitor and adjust fishing gear to maximise performance according to industry and gear expectations of catch size.
2.	Operate and recover fishing gear	2.1	Use effective communication during fishing operations according to industry best practices.
		2.2	Monitor fishing activities according to industry specifications.

	2.3 Operate machinery in accordance with identified signals.
	2.4 Prepare gear for deployment and secure the appropriate connections according to gear usage specifications.
	2.5 Deploy gear in the correct sequence according to regulations and manufacturer's instructions.
	2.6 Confirm that the selected gear and rigging comply with relevant fishing legislation.
	2.7 Adjust the rigging of the gear to suit the target species and the operating area.
	2.8 Operate fishing gear letting out and pulling in nets and lines and extract the catch from the nets or line hooks according to industry best practices.
	2.9 Monitor the performance of gear and implement adjustments to the rigging to match changes in operating conditions and ensure efficient fishing according standard operating procedures.
	2.10 Identify and deal with any distortion in or damage to gear to maintain efficiency in performance according to standard operating procedures.
	2.11 Recover fishing gear in cooperation with others according to regulations and standard operating procedures.
3. Repair fishing gear	3.1 Assess gear for damage and decide on the correct repair method according to manufacturer's specifications.
	3.2 Prepare damaged parts for repair using safe working practices.
	3.3 Restore the correct length and strength of the damaged framework using safe working practices.

3.4   Restore the correct shape and configuration of fishing gear using safe working practices.

3.5   Confirm that restored gear is not distorted and attach fittings securely according to manufacturer's specifications.

3.6   Monitor the effectiveness of fishing gear repairs using the catch ratio as a guide.

RANGE STATEMENT

All range statements must be assessed:

1. **Fishing gear** may include but not limited to:

    *   Active e.g. hooks, seines, gill net, lines,
        crimps, highflyer buoys, bullet buoys and
        radio buoys
    *   Passive e.g. gill nets, traps

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are the statutory regulations and guidelines, workplace instructions and vessel contingency plans.

2. What are the legal requirements and industry guidance that control fishing activities.

3. What are the different types of fishing gear, their components, operating methods, rigging arrangements, specifications and features for each type.

4. How to match gear and operational method to vessel capabilities.

5. What are safe working practices and how to apply these when preparing, operating, maintaining and recovering fishing gear.

6. What are the safety measures to be employed when dealing with wet/slippery decks, sharp knives, entangling lines and working in foul weather.

7. What are gear plans and their use in fishing gear preparation activities.

8. Which working methods and techniques are used in gear preparation.

9. What are the tools, equipment and materials used in fishing gear preparation and how to use each safely.

10. Which materials are used in the construction of all fishing gear and the associated equipment including their breaking strains.

11. Which framework and attachments are commonly used in fishing gear.

12. How to prepare, shoot and retrieve various types of fishing gear.

13. How to use ancillary equipment and machinery.

14. How to adjust and rig various types of fishing gear safely according to relevant legislation.

15. What is the terminology of gear parts, construction, rigging and repair.

16. What is the effect of rigging alterations on gear configuration and performance.

17. How catch behave in relation to the type of fishing gear used.

18. How to visually monitor gear performance.

19. How to identify damaged gear and gear abnormalities.

20. How to repair fishing gear.

21. Why it is important to repair damaged fishing gear.

22. How gear can become fast, fouled or damaged.

23. What are the implications of fast, fouled or damaged gear.

24. How to deal with fast, fouled and damaged gear.

25. What is fishing gear wear and tear and what are the safe limits of operation.

26. What are the dangers associated with operating fishing gear.

27. How to observe and monitor gear performance.

28. Why it is important to communicate effectively during fishing operations.

29. What is ghost fishing and how to avoid it.

30. What negative impact does ghost fishing have on fisheries.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

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(2) Method of Assessment

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UA11003 Handle and care for catch

Unit Descriptor:	This unit describes the knowledge, skills and attitudes required to deal with catch including removing catch from gear, preparing and storing catch. It also deals with the particular conditions under which catch must be maintained in order to maximise quality and quantity of catch.

ELEMENT	PERFORMANCE CRITERIA

Candidates must be able to:

1.	Prepare containers/containment areas for receiving and stowing catch	1.1	Maintain high standards of personal hygiene and use effective, safe and hygienic work practices according to industry best practices.
		1.2	Organise and clean catch receiving areas and equipment to maintain quality and hygiene standards.
		1.3	Clean, sanitise and set up catch stowage area according to standard operating procedures to maintain quality and hygiene.
		1.4	Prepare and operate appropriate fishing gear and equipment for use according to standard operating procedures.
2.	Receive and handle catch	2.1	Haul fishing gear at intervals to minimise harmful effects of the environment on catch according to industry best practices.
		2.2	Remove catch from fishing gear and preserve according to industry processing best practices.
		2.3	Identify, sort and remove unmarketable and undersized catch and marine debris according to regulations and standard operating procedures.
		2.4	Select and prepare catch for stowage to meet market requirements.
3.	Stow and care for catch	3.1	Check and sort catch according to quality, appearance, condition and integrity of catch.

		3.2	Stow catch in accordance with regulations and standard operating procedures.
		3.3	Confirm stowage hold is secured and catch is safe according to standard operating procedures.
4.	Dispose of unsuitable catch	4.1	Handle diseased, spoilt, contaminated or tainted catch according to safety/correct food handling procedures to avoid cross contamination of good fish.
		4.2	Dispose of unsuitable catch according to industry and environmental regulations.

RANGE STATEMENT

All range statements must be assessed:

1. **Catch receiving areas** may include but not limited to:

   - Insulated
   - Non-insulated

2. **Clean and sanitise** may include but not limited to:

   - Sanitising chemicals i.e. chlorine base products
   - Commercial cleaning solutions

3. **Catch** may include but not limited to:

   - Fish
   - Crustaceans/shellfish

4. **Fishing gear** may include but not limited to:

   - Active
   - Passive

5. **Environmental effects** may include but not limited to:

   - Drying
   - Elevated temperatures
   - Contamination

6. **Processing best practices** may include but not limited to:

   - Stunning
   - Bleeding
   - Gutting
   - Icing

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are your legal responsibilities whilst fishing at sea.

2. What is catch and how to care for it.

3. How to receive, stow and care for catch correctly and the industry requirements for doing so.

4. How to capture fishery using the correct/appropriate fishing gear and fishing methods.

5. Why it is important to cover and stow catch as soon as possible after being captured.

6. What are the different types of ice which can be used to chill fish and how to use them.

7. What are the different types of holds/storage methods used to stow fish.

8. What are the catch ice ratios used for stowing fish correctly.

9. How to determine the type and quality of ice received and its impact on the catch.

10. How to use chilled seawater to care for catch.

11. How to clean and sanitise hold containers/containment areas.

12. How to safely handle and use chemicals for cleaning and sanitising purposes.

13. How to safely store chemicals used for cleaning and sanitising purposes.

14. What are the industry sanitation procedures for controlling pests on board fishing vessels.

15. What is good personal hygiene.

16. How to maintain good personal hygiene when capturing, stowing and handling catch.

17. What are the hygiene practices and procedures, food handling practices and regulations of the fishing industry.

18. How to follow hygiene procedures.

19. How to prevent cross-contamination from occurring on board fishing vessels.

20. What are the different types of catch handling equipment and their applications.

21. What are the different types of catch receiving and stowing containers and how to prepare them for catch.

22. How to stow fish appropriately to ensure that the stability of the vessel is not compromised.

23. How to identify main species.

24. What are the recommended principles and procedures to maximise the quality of catch.

25. How to prevent spoilage in fish.

26. What fishing gear is used for various fish and how to apply them.

27. How to store catch and different types and species.

28. What are the consequences of poor catch handling.

29. What are the hazards associated with different types of fish.

30. How to identify and dispose of spoilt, diseased, contaminated and tainted catch and what are the industry and environmental regulations for doing so.

EVIDENCE GUIDE

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UA11103   **Contribute to sustainable fishing practices**

Unit Descriptor:	This unit describes the knowledge, skills and attitudes required to contribute to sustainable fishing practices. It covers fishery resource management concepts and the use of fishing gear and methods for minimising the negative effects on marine ecosystems. It also addresses the relevant fisheries and environmental legislation for conserving the marine environment and preventing pollution.

ELEMENT	**PERFORMANCE CRITERIA**

Candidates must be able to:

1.	Assess and minimise the impact of fishing operations on the ecosystem	1.1	Confirm that fishing gear and the methods of operation comply with relevant fisheries legislation.
		1.2	Identify and evaluate aspects of vessel operations which may lead to irresponsible fishing practices.
		1.3	Check the serviceability of fishing gear and ensure it is maintained for use according to manufacturer's specifications.
		1.4	Mitigate and minimise negative impacts on the marine environment using the appropriate industry approved fishery resource management concepts and responsible fishing practices.
		1.5	Modify fishing gear, where necessary, to improve the selectivity of catch and reduce the negative impact on the marine environment, according to industry best practices and legislation.
		1.6	Communicate the requirements of responsible fishing practices and sustainable fishing to crew members according to standard operating procedures.
2.	Manage and dispose of shipboard waste	2.1	Handle and minimise shipboard waste according to relevant legislation.
		2.2	Handle and dispose of garbage in accordance with relevant legislation.

3.	Record and report information	3.1	Collect and record data (catch) according to regulations and standard operating procedures, to monitor and assess effectiveness of mitigation of negative impact.
		3.2	Report lost fishing gear, accidents or breaches of legislation which may impact on the marine environment according to maritime regulations and standard operating procedures.
		3.3	Complete required documentation, fishing trip and vessel operations according to standard operating procedures and industry regulations.

RANGE STATEMENT

All range statements must be assessed:

1. **Irresponsible fishing practices** may include but not limited to:

   - Unregistered, unlicensed vessels
   - Illegal/harmful fishing techniques (poisoning, dynamiting)
   - Capturing endangered species
   - Fishing in another state's waters without permission

2. **Fishery resource management concepts** may include but not limited to:

   - Biological sustainability
   - Sustainable yield
   - Overfishing
   - Precautionary approach
   - Selective fishing gear and selective fishing methods

3. **Responsible fishing practices** may include but not limited to:

   - Legal fishing range according to the United Nations Convention on the Law of the Sea (UNCLOS) e.g. territorial sea, exclusive economic zone (EEZ), high seas
   - Waste minimisation and safe garbage disposal
   - Energy and fuel-efficient equipment/vessels (low sulphur fuels)

4. **Shipboard waste** may include but not limited to:

   - Oils, oily water
   - Fishing gear - old or damaged
   - Refrigerants, CFCs, HCFCs and Halons (where applicable)
   - Human waste and garbage

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. Which legislation supports responsible and sustainable fisheries.

2. What are the responsible fishing practices as outlined in the United Nations Convention on the Law of the Sea (UNCLOS), Fisheries Act and Regulations and International Labour Organization (ILO) requirements.

3. What are sustainable fisheries.

4. How to prevent marine pollution.

5. What is pollution and the various types of pollution.

6. How to protect the marine environment.

7. Which fishing methods impact on the ecosystem.

8. Why it is important to protect the marine environment.

9. Why it is important to prevent pollution of the marine environment.

10. What is overfishing.

11. What are marine hazards and how these affect the marine environment.

12. What controls are used to mitigate hazards and their effects on the environment.

13. What are endangered species.

14. What is a fisheries ban.

15. What is dynamiting.

16. What is fish poisoning.

17. What are safe and unsafe fishing practices.

18. How to prevent over-exploitation of fishery resources.

19. What is climate change.

20. What is the impact of climate change on the marine ecosystem.

21. How to promote sustainable fisheries.

22. What are the selective fishing gear, methods and strategies available to the maritime/fishing industry that promote sustainable fisheries.

23. How to minimise waste, discards, catch of non-target species.

24. How do legislation and regulations assist in sustainable fisheries.

25. What are safe working practices related to equipment, working in enclosed spaces, lifting, handling and typical hazards.

26. How to identify the possible effects of operational or accidental pollution on the marine environment.

27. What is the function of Marpol in protecting the marine environment.

28. What are the principles of fisheries management and their practical applications.

29. How can commercial fishery operations impact on the marine ecosystem (flora and fauna).

30. What actions can be taken to minimise capturing undersized and non-target species.

31. What impact catching undersized (juvenile) fish can have on the fishery resources.

32. What are the relevant fisheries legislations controlling commercial fishing methods and their applications.

33. What are flags of convenience and how do they contribute to unsustainable fisheries.

EVIDENCE GUIDE

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Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used**, except in exceptional circumstances where natural work evidence is unlikely to occur.

Glossary of Terms

Assessment methods

The methods which can be used to determine competence in performance and underpinning knowledge.

Assessors

The Assessor guides and assesses the candidate. His/her role is to determine whether evidence presented by a candidate for assessment within the programme, meets the required standard of competence in the relevant unit or element. The Assessor needs to be competent to assess to national standards in the area under assessment.

Approved Centre

Organisation/Centre approved by the TVET Council/National Training Agency to offer full Caribbean Vocational Qualifications.

Case Studies

In situations where it is difficult for workplace assessment to take place, case studies can offer the candidate an opportunity to demonstrate potential competence.

A case study is a description of an actual or imaginary situation presented in some detail. The way the case study is presented will vary depending upon the qualification, but the most usual methods are written, taped or filmed.

The main advantage of a case study is the amount of evidence of underpinning knowledge they can generate and the specific nature of the evidence produced.

Competence

In the context of vocational qualifications, competence means: the ability to carry out prescribed activities to nationally pre-determined standards in an occupation. The definition embraces cognitive, practical and behavioural skills, underpinning knowledge and understanding and the ability to react appropriately in contingency situations.

CVQ

National Vocational Qualifications (CVQs) are work-based qualifications that assess an individual's competence in a work situation and certify that the individual can perform the work role to the standards expected in employment.

CVQs are based on national occupational standards of competence drawn up by standards-setting bodies known as Industry Lead Bodies. The standards describe the level and breadth of performance that is expected of persons working in the industry or sector which the CVQ covers.

Level 3	Glossary of Terms

CVQ Coordinator

The CVQ Coordinator is the centre contact within each approved Centre offering CVQs. He/she has overall responsibility for the operation and administration of the CVQ system

Element

An element is a description of an activity which a person should be able to do. It is a description of an action, behaviour or outcome which a person should be able to demonstrate.

Explanation of CVQ Levels

CVQs cover five (5) levels of competence, from entry level staff at Level 1 through to senior management at Level 5.

Level 1 - Entry Level

Recognises competence in a range of varied work activities performed in a variety of contexts. Most work activities are simple and routine. Collaboration with others through work groups or teams may often be a requirement. Substantial supervision is required especially during the early months evolving into more autonomy with time.

Level 2 - Skilled Occupations

Recognises competence in a broad range of diverse work activities performed in a variety of contexts. Some of these may be complex and non-routine and involve some responsibility and autonomy. Collaboration with others through work groups or teams and guidance of others may be required.

Level 3 - Technician and Supervisory Occupations

Recognises competence in a broad range of complex, technical or professional work activities performed in a wide variety of contexts, with a substantial degree of personal responsibility and autonomy. Responsibility for the work of others and the allocation of resources are often a requirement. The individual is capable of self-directed application, exhibits problem solving, planning, designing and supervisory capabilities.

Level 4 - Technical Specialist and Middle Management Occupations

Recognises competence involving the application of a range of fundamental principles and complex techniques across a wide and unpredictable variety of contexts. Requires very substantial personal autonomy and often significant responsibility for the work of others, the allocation of resources, as well as personal accountability for analysis, diagnosis, design, planning, execution and evaluation.

Level 5 - Chartered, Professional and Senior Management Occupations

Recognises the ability to exercise personal professional responsibility for the design, development or improvement of a product, process, system or service. Recognises technical and management competencies at the highest level and includes those who have occupied positions of the highest responsibility and made outstanding contribution to the promotion and practice of their occupation.

External Verifier

The External Verifier is trained and appointed by the TVET Council/National Training Agency and is competent to approve and ensure an approved Centre's quality of provision.

Internal Verifier

The Internal Verifier acts in a supporting role for Assessors to ensure consistent quality of assessment and competence. They need to be competent to assess to national standards in the area under assessment.

Observation

Observation of the candidate carrying out his/her job in the workplace is the assessment method recommended in the vast majority of units and elements. Observation of staff carrying out their duties is something that most supervisors and managers do every day.

Performance Criteria

Performance criteria indicate what is required for the successful achievement of an element. They are descriptions of what you would expect to see in competent performance.

Product of Work

This could be items produced during the normal course of work, which can be used for evidence purposes such as reports, menus, promotional literature, training plans, etc.

Questioning

Questioning is one of the most appropriate ways to collect evidence to assess a candidate's underpinning knowledge and understanding.

Questioning can also be used to assess a candidate in those areas of work listed in the range which cannot be assessed by observation. Guidance on when this assessment method can be used is given in the assessment guidance of each individual element.

As an assessment method, questioning ensures you have all of the evidence about a candidate's performance. It also allows you to clarify situations.

Level 3   Glossary of Terms

Range statements

The range puts the element of competence into context. A range statement is a description of the range of situations to which an element and its performance criteria is intended to apply.

Range statements are prescriptive therefore each category must be assessed.

Role-plays

Role-plays are simulations where the candidate is asked to act out a situation in the way he/she considers "real" people would behave. By using role-play situations to assess a candidate you are able to collect evidence and make a judgment about how the candidate is most likely to perform. This may be necessary if the range specified includes a situation in which the candidate is unlikely to find himself/herself in the normal course of their work, or where the candidate needs to develop competence, before being judged competently, for example, in a disciplinary situation,

Simulations

Where possible, assessment should always be carried out by observing **natural performance** in the workplace. **Simulated performance,** however, can be used where specified to collect evidence about an aspect of the candidate's work which occurs infrequently or is potentially hazardous; for example, dealing with fires.

By designing the simulated situation, briefing the candidate and observing his/her performance, you will be able to elicit evidence which will help you judge how a candidate is **most likely** to perform in real life.

Supplementary evidence

Supplementary evidence can be used to confirm and support performance evidence. Types of supplementary evidence include witness testimonies, reports, journals or diaries, records of activities, personal statements, simulation (see note in glossary).

Underpinning knowledge

Underpinning knowledge indicates what knowledge is essential for a person to possess in order to successfully achieve an element and prove total competence.

Units

A unit of competence describes one or more activities which form a significant part of an individual's work. Units are accredited separately but in combination can make up a vocational qualification. There are three categories of units:

Mandatory units - are core to a qualification and must be completed.

Optional units - candidates must choose the required number of individual units, specified in the qualification structure, to achieve the qualification.

Glossary of Terms

Work-based projects

Work-based projects are a useful way for you to collect evidence to support any decision you make about a candidate's performance. They are particularly appropriate in determining the level of a candidate's underpinning knowledge and understanding where it may be insufficient to rely only on questioning observation.

A project often involves the identification of a solution to a specific problem identified by you and/or the candidate (such as looking at ways to redress a recent drop in sales), or may be a structured programme of work built around a central situation or idea (such as the introduction of a new job rostering process)