

## Competency Framework for Advanced Deckhand-Fishing



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## Function: Nautical knowledge

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
<b>Nautical Terms</b>	Common nautical terms which apply to the work and navigation of a fishing vessel.	Assessment of evidence obtained from a training record book and oral or practical examination.	Explain the meanings of commonly used nautical terms which apply to the work and navigation of a fishing vessel

## Function Fishing Vessel Construction, Deck Equipment and Gear.

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
<b>Parts of the Fishing Vessel</b>	Fishing vessel equipment and gear.	Assessment of evidence obtained from a training record book and oral or practical examination	Identify the main compartments, strength members, structure and equipment and explain the functions of these parts.
<b>Main Components of Fishing Gear</b>	Identifies and states the function of fishing Gear		Identify the main components of the following gear. The list of gear should include but is not limited to: <ul style="list-style-type: none"> <li>• Trawl net,</li> <li>• purse seine net,</li> <li>• set net,</li> <li>• cast net,</li> <li>• long line,</li> <li>• dredge, and</li> <li>• fish pot</li> </ul>
<b>Safe Operation and Maintenance of Deck Equipment</b>	1. Construction, application and purpose of deck equipment on fishing vessels.		1. Identify and demonstrate understanding of the construction, application and purpose of each of the following pieces of deck equipment on fishing vessels. Equipment should include but is not limited to: <ul style="list-style-type: none"> <li>• Trawl gallows and trawl doors</li> <li>• Gantries,</li> <li>• Bollards,</li> <li>• Blocks, (including power blocks, pursing blocks and snatch blocks),</li> <li>• Winches and booms,</li> </ul>

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
		Assessment of evidence obtained from a training record book and oral or practical examination	<ul style="list-style-type: none"> <li>• Derricks</li> <li>• Net drums and side rollers including monofilament surface long line drums.</li> <li>• Line and trap haulers</li> <li>• Windlasses, surge drums and capstans</li> <li>• Freeing ports</li> <li>• Sea anchors, and</li> <li>• Hydraulic cranes</li> </ul>
	<p><b>2.</b> Operation of deck equipment:</p>		<p><b>2.</b> Explains precautions, where applicable, to be taken when operating each piece of deck equipment.</p>
	<p><b>3.</b> Maintenance of deck equipment.</p>		<p><b>3.</b> Describes the processes required to maintain each piece of deck equipment.</p>

## Function: Fibre Ropes, Wire Ropes and Chains.

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
<b>Fibre Ropes</b>	1. Identify Fibre Ropes	Assessment of evidence obtained from a training record book and oral or practical examination	Identify the following types of rope and describe their main characteristics and uses: <ul style="list-style-type: none"> <li>• manila polypropylene,</li> <li>• polyethylene,</li> <li>• nylon, and</li> <li>• terylene.</li> </ul>
	2. Fibre Rope Maintenance.		Describe the treatment of fibre ropes to maximise their working life.
	3. Fibre Rope Safety.		Explain the dangers of misusing nylon ropes Describe the precautions to observe when working with fibre and wire ropes Describe the precautions to observe when working with mooring ropes.
<b>Wire Ropes</b>	1. Identify Wire Ropes.		Identify the commonly used wire ropes and describe their main characteristics and uses.
	2. Wire Rope Maintenance.		Describe the treatment of wire ropes to maximise their working life.
	3. Wire Rope Safety.		Describe the precautions to observe when working with wire ropes Describe the precautions to observe when working with mooring wires

<b>Chains</b>	<b>1. Identify Chains</b>	Assessment of evidence obtained from a training record book and oral or practical examination	Identify the commonly used chains and describe their main characteristics and uses.
	<b>2. Chain Maintenance</b>		Describe the treatment of chains to maximise their working life.
	<b>3. Chain Safety</b>		Describe the precautions to observe when working with wire ropes. This shall include the dangers of using a twisted chain.
			Explain the signs of potential failure in chains

**Function: Knots and Splices.**

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
<b>Knots</b>	1. Tie Knots, Bends and Hitches	Assessment of evidence obtained from a training record book and oral or practical examination	Tie the following knots, bends and hitches: <ul style="list-style-type: none"> <li>• Reef knot</li> <li>• round turn and two half hitches</li> <li>• bowline</li> <li>• bowline on the bight</li> <li>• Rolling hitch</li> <li>• sheet bend (single and double)</li> <li>• fisherman's bend (anchor bend)</li> <li>• clove hitch</li> <li>• marlin hitch, and</li> <li>• sheepshank</li> </ul>
	2. Use of Knots, Bends and Hitches.		Describe the uses of the knots, bends and hitches listed above.
<b>Splices</b>	1. Synthetic Rope		Make the following splices in synthetic rope: <ul style="list-style-type: none"> <li>• Eye splice in 3 strand synthetic rope (5 tucks) and multi-plait (4 tucks),</li> <li>• back splice in 3 strand synthetic rope (3 tucks),</li> <li>• short splice in 3 strand synthetic rope (4 tucks), and</li> <li>• cut splice in 3 strand synthetic rope.</li> </ul>

	<b>2. Wire Rope.</b>	Assessment of evidence obtained from a training record book and oral or practical examination	Make a Splice in a 6 stranded flexible wire rope. either: <ul style="list-style-type: none"> <li>• A thimble or eye splice in a wire rope with at least 5 full tucks against the lay with the first tuck being a locking tuck, or</li> <li>• Any other equally effective method of splicing will be accepted.</li> </ul>
<b>Whipping</b>	Prevent ropes from unlaying.		Make an effect whipping to prevent a rope from unlaying.
<b>Stoppers</b>	<b>1. Rope stopper</b>		Apply a rope stopper on a fibre rope.
	<b>2. Chain stopper</b>		Apply a chain stopper on a wire rope.

**Function: Purchases.**

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Purchases	Rigging	Assessment of evidence obtained from a training record book and oral or practical examination	Demonstrate how to rig the following: <ul style="list-style-type: none"> <li>• Gun and tackle,</li> <li>• handy billy,</li> <li>• two fold purchase, and</li> <li>• three fold purchase</li> </ul>
	Purpose of tackles		Explain the purpose of tackles as machines with regard to power.

**Function: Prepare a Fishing Vessel.**

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
<b>Prepare Fishing Vessel</b>	Deckhand duties	Assessment of evidence obtained from a training record book and oral or practical examination	Describe the duties of a deckhand in preparing the fishing vessel to go to sea

**Function: Lookout and Associated Duties.**

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
<b>Hazard Identification</b>	Margins of safety	Assessment of evidence obtained from a training record book and oral or practical examination	Explain the procedure for keeping a proper lookout in order to maintain a margin of safety between own vessel and other traffic
	Safe Distances Between Boats and Land		Demonstrate understanding that a boat may be too close to land by interpreting the position: <ul style="list-style-type: none"> <li>Using the actual range of land relative to range rings set on the radar by the skipper as the minimum distances allowable,</li> <li>using the actual depth shown on the echo sounder relative to the depth indicated by the skipper as the minimum allowable, and</li> <li>from a GPS lat/long read out against the parameters set by the skipper.</li> </ul>
	Risk of Collision		Demonstrate ability to identify risk of collision using: <ul style="list-style-type: none"> <li>Compass bearings,</li> <li>Visually, and</li> <li>by radar.</li> </ul>
<b>Guidance Equipment</b>	<b>1. Radar Operations.</b>		Describe the dangers of: <ul style="list-style-type: none"> <li>Relying on radar instead of a visual lookout,</li> <li>attempting to interpret radar displays without proper training, and</li> <li>operating radar without proper training.</li> </ul>

	<b>2. GPS Operations</b>	Assessment of evidence obtained from a training record book and oral or practical examination	Describe the dangers of operating GPS equipment without proper training.
<b>Anchors</b>	<b>1. Weighing the Anchor</b>		<b>1. State the procedure for anchoring and weighing anchor on all sizes of vessels.</b>
	<b>2. Dragging the Anchor</b>		<b>2. Describe all the signs of dragging anchor when on anchor watch</b>
	<b>3. Common Nautical Terms Which Apply to Anchoring</b>		Explain the meanings of commonly used orders, terms and commands which apply to Anchoring
<b>Mooring</b>	Mooring Operations		Explain the meanings of commonly used orders, terms and commands which apply to mooring operations  Demonstrate general knowledge of Mooring operations
	Mooring Equipment		Demonstrate safe use and appropriate handling of the following: <ul style="list-style-type: none"> <li>• Mooring ropes,</li> <li>• Springs, and</li> <li>• bow, stern and breast ropes</li> </ul>
<b>Towing</b>	Towing Operations		Explain the meanings of commonly used orders, terms and commands which apply to towing operations
<b>Steering</b>	Steer the Vessel		Demonstrate ability to steer the vessel on a compass course and maintain a course satisfactorily.
<b>Wheel and Lookout</b>	Methods for Hand Over	Describe the method of handing over the wheel and lookout duty when vessel is under way in order to ensure its continuity	

<b>Watchkeeping.</b>	<b>1. Engine Checks</b>		Describe the procedure to maintain engine checks during the watch
	<b>2. Safe Watchkeeping Practices</b>		<p>Describes the following safe watchkeeping practices:</p> <ul style="list-style-type: none"> <li>• watchkeepers to be experienced and capable,</li> <li>• precautions to be taken against fatigue,</li> <li>• number of watchkeepers to be increased at critical times,</li> <li>• auto pilot to have a frequent re-set alarm</li> <li>• radar to be used in addition to and not instead of a visual lookout, and</li> <li>• the hazards associated with 'divided command'.</li> </ul>
	<b>3. International Collision Prevention Regulations</b>		<p><b>1. Identify the following:</b></p> <ul style="list-style-type: none"> <li>• Navigation lights,</li> <li>• day shapes of small craft</li> <li>• fishing vessels, and</li> <li>• power driven vessels</li> </ul> <p><b>2. Demonstrate the correct actions to avoid collision when vessels are:</b></p> <ul style="list-style-type: none"> <li>• Approaching from right ahead,</li> <li>• approaching from forward of the beam, and</li> <li>• overtaking.</li> </ul>

**Function: Navigation Equipment.**

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
<b>Use of Magnetic and Gyro Compass</b>	Use of the compass	Assessment of evidence obtained from a training record book and oral or practical examination	Demonstrate the use the Marine Compass to take bearings and state the bearings relative to compass north and the ship's head.
	<b>1.</b> Ferro-magnetic materials		Explains the precautions required with regard to Ferro-magnetic materials when using a magnetic compass.
	<b>2.</b> Gyro compass		Explains the precautions required when using a gyro compass with regard to comparison with the magnetic compass course.
	<b>3.</b> Reliance on automatic		Explains the Consequences of relying on automatic pilot with regard to fatigue.
			Explains the Consequences of relying on automatic pilot with regard to d accuracy of course.
Use of Automatic pilot.		Explain the circumstances under which an automatic pilot should not be used.	

## Function: Catch Handling and Stowage

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
<p><b>Catch Handling and Stowage</b></p>	<p>The effects on a fishing vessel.</p>	<p>Assessment of evidence obtained from a training record book and oral or practical examination.</p>	<p>Describe the effects upon a fishing vessel of catch handling and stowage factors.</p>

## Function: Fire Prevention and Fire Fighting Techniques

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
<b>Fire Prevention</b>	Main Causes of Fire	Assessment of evidence obtained from a training record book and oral or practical examination	State the main causes of fires on board vessels.
	Main Elements of Fire and Explosion		State the three main elements of fire and explosion.
<b>Fire Safety Procedures</b>	Firefighting equipment		<p>1. Describe the following:</p> <ul style="list-style-type: none"> <li>• The appropriate action to take on finding a fire on board,</li> <li>• where to direct a jet of foam to extinguish an oil fire,</li> <li>• the correct extinguisher to use on each type of fire, and</li> <li>• the location of Fire Fighting Appliances on board.</li> </ul> <p>2. Demonstrate fire safety procedures and the use of portable and fixed fire-fighting equipment.</p>

## Function: Safety

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
<b>Personal Safety</b>	1. Protective Clothing	Assessment of evidence obtained from a training record book and oral or practical examination	Identify protective clothing and circumstances in which it should be used.
	2. Safety Procedures		<ul style="list-style-type: none"> <li>Describe the measure to be taken to prevent falling or being swept overboard</li> <li>Demonstrate the ability to follow emergency procedures specified in the vessel's contingency plan</li> <li>Describe the relevant emergency situation duties and responsibilities</li> <li>Describe the appropriate action to be taken after a fire or collision</li> <li>Describe the procedures to be followed in abandoning the fishing vessel</li> <li>Describe the man overboard procedures.</li> </ul>
	3. Slippery Surfaces		Describe the danger of slippery surfaces on board a vessel and the precautions that should be taken when working on slippery surfaces.
	4. Hazard Identification.	Assessment of evidence obtained from a training record book and oral or practical examination	<ul style="list-style-type: none"> <li>Identify the hazards of refrigerant gases and precautions to take.</li> <li>Identify hazard areas on deck and precautions to take.</li> </ul>
	5. Working Conditions		Describe the following adverse effects and which influence work practices: <ul style="list-style-type: none"> <li>Isolation</li> <li>Dependence on each other</li> </ul>

		<ul style="list-style-type: none"> <li>discomfort</li> </ul>
	<b>6. First Aid</b>	Describe strategies to overcome each adverse effect.
		Demonstrate basic first aid procedures
<b>Vessel Safety</b>	<b>1. Vessel Movement</b>	<b>1.</b> Describe the danger caused by the vessel's movement and accelerations and the precautions that can be applied in differing situations.
	<b>2. Slippery Surfaces</b>	<b>2.</b> Describe the danger of slippery surfaces on board a vessel and the precautions that should be taken when working on slippery surfaces.
	<b>3. Fishing Operations</b>	<b>3.</b> Describe some of the dangers associated with fishing operations. This may include but is not limited to the following: <ul style="list-style-type: none"> <li>Shooting fishing gear into the water,</li> <li>Hauling the fishing gear, and</li> <li>Landing the catch on board</li> </ul>
<b>Cleanliness</b>	<b>1. Personal Hygiene</b>	<b>1.</b> Explain the procedures and reasons for maintaining personal hygiene.
	<b>2. Boat Cleanliness</b>	<b>2.</b> Explain the procedures and reasons for maintaining boat cleanliness.

## Function: Prevention of Pollution

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
<p><b>Prevention of Pollution.</b></p>	<p>Protection of the Marine Environment</p>	<p>Assessment of evidence obtained from a training record book and oral or practical examination</p>	<p>Describe the consequences of not preserving the marine environment</p> <hr/> <p>Describe the methods of disposing of waste at sea and in port, This includes but is not limited to:</p> <ul style="list-style-type: none"> <li>• strapping,</li> <li>• plastic,</li> <li>• rubbish, and</li> <li>• engine oil waste.</li> </ul>

## Function: Stability and Associated Seaworthiness

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
<b>General Understanding of Watertight and Weather Tight Integrity.</b>	Understands Watertight and Weather Tight Integrity of Common Types of Fishing Vessels.	Assessment of evidence obtained from a training record book and oral or practical examination	Describe the purpose of watertight and weather tight doors in relation to vessels stability and associated seaworthiness
			Describe the operation of closing door devices and other openings relevant to watertight and weather tight integrity of a fishing vessel.
			Describe the purpose of freeing ports on a fishing vessel.

**Function: Personal Survival Techniques.**

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
<b>Response Procedure</b>	1. Emergency	Assessment of evidence obtained from a training record book and oral or practical examination	Describe the procedures to be taken in response to emergencies
			Identify all the methods for signaling distress available to the crew of a fishing vessel.
			Describe and demonstrate how to tune an SSB or VHF radio transmitter in order to send a distress signal and correctly repeat the format of a MAYDAY call
	2. Survival		Describe personal survival procedures.
	Describe the value of emergency training drills.		
<b>Emergency Equipment</b>	1. Location of Emergency Equipment	Identify the location of the lifesaving equipment	
	2. Use of Life Jackets and Lifebuoys	Describe the use of life jackets and lifebuoys and the situations where it is appropriate to use them.	
		Demonstrate how to: <ul style="list-style-type: none"> <li>Use life jackets and lifebuoys, and</li> </ul>	

		Assessment of evidence obtained from a training record book and oral or practical examination	<ul style="list-style-type: none"> <li>maintain life jackets and lifebuoys.</li> </ul>
	<b>3. Use of Flare and Rockets</b>		<p>Describe the use of flare and rockets and the situations where it is appropriate to use them.</p> <p>Demonstrate how to:</p> <ul style="list-style-type: none"> <li>Use flares and rockets, and</li> <li>maintain flares and rockets.</li> </ul>
	<b>4. Use of Life Rafts and Life Boats</b>		<p>Describe the use of life boats and life rafts and the situations where it is appropriate to use them.</p> <p>Identify the equipment that is to be in a life raft.</p> <p>Demonstrate how to:</p> <ul style="list-style-type: none"> <li>Use of life boats and life rafts, and</li> <li>maintain of life boats and life rafts.</li> </ul>
	<b>5. Use of Emergency Position Indicating Radio Beacons</b>		<p>Describe the use of Emergency Position Indicating Radio Beacons and the situations where it is appropriate to use them.</p> <p>Demonstrate how to:</p> <ul style="list-style-type: none"> <li>Use Emergency Position Indicating Radio Beacons, and</li> <li>maintain Emergency Position Indicating Radio Beacons.</li> </ul>

**Function: Codes of Conduct for Responsible fisheries.**

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
<b>1. Codes of Conduct</b>	Understands the Principles and Guidelines of the Codes of Conduct	Assessment of evidence obtained from a training record book and oral or practical examination	Describe the objective of the Codes of Conduct for Responsible fisheries.
<b>2. Responsible Harvesting</b>			Describe the effects of discards and by-catch.
			Identify the causes of habitat damage through fishing operations.
			Demonstrate knowledge by making recommendations with regard to the disposal of unserviceable fishing gear.
<b>3. Responsible Fishing Gear Selectivity</b>			Explain the importance of fishing gear selectivity.
			Explain the factors that affect the size selectivity
			Explain the factors that affects species selectivity
<b>4. Energy Optimisation.</b>			Explain the various factors that can optimize energy use in the fishing industry.
<b>5. Duties of All</b>			Describe the relevant national Administrations and their fisheries

<b>States</b>		Assessment of evidence obtained from a training record book and oral or practical examination	responsibilities.
<b>6. Duties of Flag States</b>			Describe the relevant national Administrations and their responsibilities with regard to fishing vessels and fishing personnel.
<b>7. Duties of Port States</b>			Describe the actions that can be taken by a port state.