

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

**Hanover House
24 Douglas Street
GLASGOW G2 7NG**

NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number-	0068652	-Session-1986-87
-Superclass-	ZF	

-Title-	SEAMANSHIP: CLASS 4
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-DESCRIPTION-

Type and Purpose	A <u>specialist</u> module which enables the student to develop his/her knowledge and skill to the standard required for the award of the Department of Transport Class 4 Certificate of Competence.
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Preferred Entry Level	08650 Seamanship: Certificate of Proficiency in Survival Craft 08651 Seamanship: Efficient Deck Hand Mandatory recognised sea service.
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Learning Outcomes	The student should: <ol style="list-style-type: none">1. know the contents of, and be able to apply, the International Regulations for Preventing Collisions at Sea and the annexes concerned with safe navigation;2. know bridge and anchor watchkeeping procedures as specified in Merchant Shipping Notices and other standard advisory publications;3. know the factors determining safety and security of vessels in port;4. know emergency procedures and use of equipment, including life saving and fire fighting appliances, designed to counter emergencies;5. know the factors affecting ship handling, berthing/unberthing, including the use of anchors;
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6. demonstrate how to conduct cargo watches having due regard to the safety procedures as laid down in the 'Code of Safe Working Practices for the Safety of Merchant Seamen', and in relevant M notices.
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Content/
Context

The content and level of this module are determined by the requirements of the Department of Transport as the statutory licensing authority.

Corresponding to the Learning Outcomes:

1. International Regulations for Preventing Collisions at Sea, including correct use of radar in different modes, in conditions of restricted visibility.
2. (a) Bridge watchkeeping procedures:
 - (i) understanding of watchkeepers' legal responsibilities;
 - (ii) proper application of L01 above;
 - (iii) safe navigation techniques;
 - (iv) handing over/taking over, a watch;
 - (v) use of all equipment and instruments on the bridge and on deck;
 - (vi) knowledge of when the Master should be called;
 - (vii) procedures on entering conditions of restricted visibility;
 - (viii) watchkeepers' responsibility relative to pilot on bridge;
 - (ix) operation of all types of steering gears;
 - (x) use of signals and communications equipment;
 - (xi) preparations for arrival into, and departure from, port.
- (b) Anchor watchkeeping procedures:
 - (i) position fixing and checking;
 - (ii) anchor dragging - prevention and cure;
 - (iii) importance of vigilance;

- (iv) mandatory signals shown or made in all conditions of visibility;
 - (v) lookout for safety and security;
 - (vi) radio watch to be maintained;
 - (vii) weather reports to be monitored.
3. General safety and security:
- (i) gangways and watchmen;
 - (ii) tending of mooring lines and net guards;
 - (iii) adequate deck lighting;
 - (iv) fire patrol maintained;
 - (v) fencing of open hatchways;
 - (vi) entering enclosed spaces;
 - (vii) free access fore and aft;
 - (viii) oil pollution prevention;
 - (ix) pilot ladders and hoists;
 - (x) reading of draught marks.
4. Emergency procedures:
- (i) emergency anchoring;
 - (ii) man-overboard;
 - (iii) launching and recovering boats at sea;
 - (iv) fire on board ship - use of equipment;
 - (v) emergency stations and abandoning ship;
 - (vi) survival techniques in boats/rafts at sea;
 - (vii) S.A.R. techniques;
 - (viii) beaching of boats;
 - (ix) preparations for ship entering heavy weather;
 - (x) assisting other vessels in distress;
 - (xi) emergency signalling methods and procedures.

5. Ship handling:
 - (i) handling characteristics of vessels;
 - (ii) transverse thrust;
 - (iii) use of bow thrusters;
 - (iv) emergency stopping;
 - (v) turning short round - use of anchors;
 - (vi) berthing and unberthing;
 - (vii) use of tugs;
 - (viii) securing to buoys;
 - (ix) shallow water and narrow channel effects;
 - (x) interaction between vessels;
 - (xi) effects of weather on handling;
 - (xii) running and standing moors;
 - (xiii) foul anchor, foul hawse.

6. Cargo watches:
 - (i) prevention of fire and theft;
 - (ii) safe use of cargo gear, including winches, derricks and cranes;
 - (iii) cleanliness of holds and pump suctions;
 - (iv) adequate fencing and lighting;
 - (v) safe opening and closing of hatchways;
 - (vi) use of separation and dunnage;
 - (vii) prevention of sweat and contamination;
 - (viii) safe and proper stowage of cargo, including deck cargo;
 - (ix) avoidance of overstowage.

Suggested Learning and Teaching Approaches	<p>Active learning and teaching approaches should be used throughout.</p> <p>The approach should be mainly oral and discursive with group discussion of individual experiences and 'role playing' during question and answer sessions.</p> <p>Films and videos, to show individual facets of the work, should be used as extensively as possible.</p> <p>Film and video should be used to stimulate discussion, not simply to convey information.</p>
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Assessment Procedures	<p>Checklists should be used for formative assessment of learning outcomes 1-6 inclusive. The student should be kept informed of progress throughout and remedial tuition should be provided in a suitable form when appropriate. Learning outcomes 1-6 inclusive should be summatively assessed by checklists such as the ones below. A tick or cross should be used to record satisfactory/unsatisfactory performance. Satisfactory performance on all items of each checklist should be considered as adequate evidence that the student has achieved the learning outcomes.</p>
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Learning outcome 1

Checklist

The student correctly:

1. identifies all types of vessels from groupings of lights and shapes, as appropriate;
2. recognizes risk of collision from configuration of lights;
3. identifies all classes of vessels from sounding of fog signals;
4. identifies responsibility to keep clear or to stand on;
5. takes action, as appropriate, to avoid collision;
6. analyses meanings of all rules.

Learning outcome 2

Checklist

The student correctly:

1. describes a watchkeepers' legal responsibilities;
2. describes safe navigation techniques;
3. describes procedures for handing over the watch;
4. describes the use of all bridge and deck equipment;
5. lists reasons for calling the Master;
6. describes procedures on entering conditions of restricted visibility;
7. uses signals and communications equipment;
8. describes preparations for arrival into, and departure from, port;
9. describes how to check a vessel's safe anchorage;
10. describes how to prevent or cure a vessel dragging;
11. lists signals shown or made by a vessel at anchor.

Learning outcome 3

Checklist

The student correctly:

1. lists the duties of gangway watchmen, including tending of mooring lines;
2. describes precautions before entering enclosed spaces;
3. describes methods of preventing oil pollution;
4. rigs a pilot ladder;
5. lists the equipment required at a pilot boarding point.

Learning outcome 4

Checklist

The student correctly:

1. describes how to anchor in an emergency;
2. describes action taken on man-overboard;
3. describes the launching and recovery of sea-boats;
4. lists fire fighting equipment and proper use;
5. describes action taken on hearing emergency signal and abandon ship signal;
6. describes S.A.R. techniques;
7. describes beaching of boats in rough weather;
8. describes the preparations for entering heavy weather;
9. describes emergency signalling methods and procedures.

Learning outcome 5

Checklist

The student, to an acceptable standard:

1. describes the handling characteristics of vessels;
2. describes the effects of transverse thrust;
3. describes the use of bow thrusters;
4. describes the methods of stopping in an emergency;
5. using models, shows how to turn a ship short round;
6. using models, berths and unberths a vessel, with or without the use of tugs;
7. describes how to secure to buoys;
8. describes interaction and effects of narrow channels;
9. describes the effects of heavy weather on ship handling;

10. demonstrates running and standing moors;

11. describes foul anchor and foul hawse.

Learning outcome 6

Checklist

The student, to an acceptable standard:

1. describes the prevention of fire and theft;
2. describes the safe use of all cargo-handling equipment;
3. describes the preparation of holds before loading;
4. describes the necessity of safe fencing and lighting;
5. demonstrates safe opening and closing of hatchways;
6. describes the use of separation and dunnage;
7. describes the prevention of sweat and contamination;
8. describes the safe and proper stowage of cargo, including deck cargo;
9. describes overstowage and its prevention.