



National Unit Specification: general information

UNIT Seamanship: Efficient Deck Hand (SCQF level 6)

CODE F7HE 12

SUMMARY

This Unit is suitable for candidates who aspire to a career in the Merchant Navy, either as a seaman or deck officer. It develops practical knowledge which is a requirement for certification as a ships officer.

It is a specialist module which enables the student to acquire a basic knowledge of the theory and practice of seamanship; in addition, it provides all the skills and knowledge required for a candidate who wishes to attempt the examination for certification as an Efficient Deckhand (EDH), administered by the Maritime and Coastguard Agency (MCA). Whilst the Unit is primarily intended for those who intend to seek employment in the Merchant Navy, it could be studied by someone with an interest in the subject area.

OUTCOMES

- 1 Demonstrate an understanding of Common Nautical terms and Navigational watchkeeping duties.
- 2 Demonstrate an understanding of the operation of Lifesaving and Fire Fighting appliances.
- 3 Demonstrate an ability to tie knots bends and hitches and splice rope and wire.
- 4 Demonstrate an understanding of a seaman's duties and responsibilities, as described in relevant sections of the Code of Safe Working Practices (COSWP).

RECOMMENDED ENTRY

Entry is at the discretion of the centre. Sea-time on vessels in the Merchant Navy would be an advantage, but is not essential for delivery of this Unit.

CREDIT VALUE

1 credit at SCQF level 6 (6 SCQF credit points at SCQF level 6*)

** SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the framework is allocated a number of SCQF credit point at an SSCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Administrative Information

Superclass: ZF

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National Unit Specification: general information (cont)

UNIT Seamanship: Efficient Deck Hand (SCQF level 6)

CORE SKILLS

There are opportunities to develop the following Core Skills in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

Communication: Oral at SCQF level 5

Communication: Reading at SCQF level 5

Problem Solving: Critical Thinking at SCQF level 5

Working with Others: Working Co-operatively with Others at SCQF level 5

National Unit Specification: statement of standards

UNIT Seamanship: Efficient Deck Hand (SCQF level 6)

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

OUTCOME 1

Demonstrate an understanding of Common Nautical terms and Navigational watchkeeping duties.

Performance Criteria

- (a) Explain correctly the meaning of common nautical terms.
- (b) Describe the duties of a bridge lookout and the reporting of lights and objects.
- (c) Describe the compass card in 360° notation.
- (d) Demonstrate an understanding of helm orders.

OUTCOME 2

Demonstrate knowledge of the operation of Lifesaving and Fire Fighting appliances.

Performance Criteria

- (a) Demonstrate an understanding of the importance of musters and drills and know what action to take on hearing alarm signals.
- (b) Demonstrate an understanding of the general arrangement and the dangers of fixed smothering systems.
- (c) Demonstrate an understanding of the correct operation, precautions and dangers of lifeboat release gear.
- (d) Demonstrate an understanding of the procedures for boat preparation and launching.
- (e) Demonstrate an understanding of the precautions to be observed when maintaining lifeboats and davits.
- (f) Explain correctly the importance of fire and watertight doors.

OUTCOME 3

Demonstrate Practical Rope Work.

Performance Criteria

- (a) Tie Common knots, bends, hitches, whippings and seizings.
- (b) Perform common splices in Rope and Wires.
- (c) Demonstrate the use of Stoppers.
- (d) Describe accurately the care, use and storage of ropes and wire.
- (e) Describe correctly the rigging of stages, bosun's chair, pilot ladders, gangways and accommodation ladders.
- (f) Demonstrate the correct rigging of a hydrostatic release Unit.
- (e) Describe accurately the procedure for rigging a derrick.
- (g) Explain accurately the securing of the deck for severe weather.

National Unit Specification: statement of standards (cont)

UNIT Seamanship: Efficient Deck Hand (SCQF level 6)

- (h) Describe correctly the procedures for opening and closing of hatches and watertight doors including bow, stern and other shell doors.
- (i) Explain correctly the marking of anchor cables.

OUTCOME 4

Demonstrate good working knowledge of a Seaman's duties and responsibilities, as described in relevant sections of the Code of Safe Working Practices (COSWP).

Performance Criteria

- (a) Explain accurately duties and responsibilities of a seafarer as described in the Code of Safe Working Practices for Merchant Seamen.

EVIDENCE REQUIREMENTS FOR THIS UNIT

Evidence is required to demonstrate that the candidates have achieved all Outcomes and Performance Criteria.

Written and/or recorded oral evidence is required to demonstrate that the candidate has achieved this Unit to the standard specified in the Outcomes and Performance Criteria. The evidence for this Unit should be obtained under controlled, supervised conditions. The assessment will be in two parts, the first requiring the candidate to produce a set of rope and wire work to an agreed specification, and the second part oral, with the assessor asking the candidate to describe and/or demonstrate their seamanship skills.

An appropriate instrument of assessment for this Unit would be a series of contextual oral questions allowing the candidates to demonstrate their practical knowledge of the duties and responsibilities expected of a seaman working on a merchant ship.

The evidence should be knowledge based with the candidate demonstrating that they can:

- ◆ Understand the meaning of common nautical terms.
- ◆ Describe the duties of a bridge lookout, and report lights and shapes correctly.
- ◆ Explain bearings taken and courses given from a compass card in 360 degree notation.
- ◆ Understand and correctly execute helm orders.
- ◆ Understand the importance of musters and drills.
- ◆ Explain the correct action to take on hearing alarm signals.
- ◆ Explain the general arrangement and the dangers of fixed smothering systems.
- ◆ Describe the safe operation, including precautions and dangers, of lifeboat release.
- ◆ Describe the procedures for boat preparation and launching.
- ◆ Explain the precautions to taken when maintaining lifeboats and davits.
- ◆ Explain the importance of fire and watertight doors.
- ◆ Demonstrate a sample of reef knot, timber hitch, clove hitch, bowline, bowline on the bight, sheet bend, double sheet bend, sheepshank, rolling hitch, round turn and two half hitches, figure of eight, Fisherman's bend, monkey's fist, wall and crown knot.

National Unit Specification: statement of standards (cont)

UNIT Seamanship: Efficient Deck Hand (SCQF level 6)

- ◆ Perform common splices, including, eye splice in eight strand plaited rope; eye, back and short splice in three strand rope; eye splice with locking tuck in wire rope; parcelled and served.
- ◆ Demonstrate the use of stoppers on ropes and wires.
- ◆ Demonstrate whippings and seizings, and the correct use of Wire grips.
- ◆ Describe the care, use and storage of ropes and wires.
- ◆ Describe the rigging of stages and bosun's chairs, and the rigging of pilot ladders, gangways and accommodation ladders.
- ◆ Show how a hydrostatic release should be rigged.
- ◆ Describe the procedure for rigging of a derrick.
- ◆ Explain the correct procedure for opening and closing hatches and watertight doors.
- ◆ Explain how the vessel is secured for heavy weather.
- ◆ Describe how anchor cables are marked.
- ◆ Demonstrate a working knowledge of the code of safe working practices for merchant seamen, with reference to the chapters on:
 - Protective clothing and equipment
 - Safety signs
 - Safety induction
 - Fire precautions
 - Emergency procedures
 - Safe movement onboard ship
 - Working aloft and outboard
 - Work in machinery spaces
 - Permit to work
 - Enclosed spaces
 - Boarding arrangements
 - Manual lifting and carrying
 - Use of work equipment
 - Lifting plant
 - Hydraulic and pneumatic equipment
 - Batteries
 - Anchoring and mooring
 - Hatches

National Unit Specification: support notes

UNIT Seamanship: Efficient Deck Hand (SCQF level 6)

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to the Unit is at the discretion of the centre, the notional design length is 40 hrs.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

This Unit has been developed as an optional Unit in the National Certificate in Shipping and Maritime Operations. It is intended that this will be part of the foundation course used by new entrants to the Merchant Navy; however, it can also be taken as a free standing Unit. Successful completion will give access to the MCA examination for the EDH award to those who have the relevant Seagoing experience.

Outcome 1 introduces candidates to the meaning of common nautical terms and watchkeeping duties. It explains the duties of a lookout and the reporting of lights and objects as a relative bearing, and includes training in the compass and an explanation of the 360 degree compass card. Helm orders should be explained in detail and if possible practiced on a vessel or in a simulator — holders of a watch rating certificate or a steering certificate should already be competent to this level.

Outcome 2 introduces the importance of musters and drills, and the action to take on hearing an alarm signal. The importance of Fire Fighting systems and the dangers of various smothering systems will be explored. Candidates will also be shown the importance of Fire and Watertight doors and understand the need to be familiar with closing procedures.

Candidates should be introduced to procedures for preparing and launching lifeboats and the dangers of release gear, and the precautions to be observed when using quick release gear; from which follows the precautions to be observed when maintaining lifeboats and davits. Holders of a Certificate of proficiency in survival craft and rescue boats, CPSC &RB (excluding fast rescue boats) should already be competent to this level.

Outcome 3 will involve substantial time in the practical seamanship workshop, allowing the candidates to develop the ability to tie common knots, bends and hitches, and learn the situations where they are to be used, to the level where they can reproduce them on demand.

Common splices will be introduced and practiced, including an eye splice in eight stranded plaited rope, eye, back, and short splice in three stranded rope, also an eye splice with locking tuck in wire rope, followed by a splice being parcelled and served using a serving mallet.

Candidates will also be trained to complete common whippings and seizings; flat seizing, round seizing, racking, common whipping and sailmakers whipping, and to demonstrate the practical use of stoppers and have knowledge of the rope material used for stoppers as well as the use of chain stoppers for wire.

The rigging of equipment to board the vessel, afloat and alongside, and to work aloft and outboard will be demonstrated and practiced, along with the safety procedures to be followed when using them — to include the slinging of stages and bosun's chairs, pilot ladders, accommodation ladders and gangways.

Candidate will be introduced to the rigging of a single swinging derrick, union purchase derricks, and a heavy lift derrick (Jumbo).

National Unit Specification: support notes (cont)

UNIT Seamanship: Efficient Deck Hand (SCQF level 6)

Procedures will be explained for securing the ship for sea and the importance of ensuring the watertight integrity of the hull by closing all hatches and openings into the hull, ie watertight doors including bow, stern and other shell doors.

Candidates should be shown the safe procedures for opening and closing hatchways, including both conventional and steel Macgregor type hatches.

Anchoring procedure and the marking of anchor cables should be discussed, together with all the relevant safety procedures to be followed, including commonly used terms such as clearing away, walking out, letting go, weighing, the anchor, anchor aweigh, sighted and clear and home. Display of suitable day and night signals when anchored.

Outcome 4 covers the Code of Safe Working Practice for Merchant Seamen (COSWP) 1998 in detail, from a practical direction as it applies to a working seaman onboard a vessel — with particular reference to the chapters listed below.

1	Protective clothing and equipment	Ch.4
2	Safety signs and to include standard Signs and colours for dangerous Goods, pipe lines, fire extinguishers	Ch.5
3	Safety induction	Ch.8
4	Fire precautions	Ch.9
5	Emergency procedure	Ch.10 sections 1-6
6	Safe movement on board ship	Ch.13
7	Working aloft and outboard	Ch.15, sections 1-6
8	Work in machinery spaces	Ch.15, section 7-10
9	Permit to Work	Ch.16, sections 1-2
10	Enclosed spaces	Ch.17, sections 1-5 and 8-11
11	Boarding arrangements	Ch.18
12	Manual lifting and carrying	Ch.19
13	Use of work equipment	Ch.20, sections 1-4 and 7-10
14	Lifting plant	Ch.21, sections 1-7 and Annex 21.1
15	Hydraulic and pneumatic equipment	Ch.22, section 10
16	Batteries	Ch.22, section 16
17	Anchoring and mooring	Ch.25
18	Hatches	Ch.26

National Unit Specification: support notes (cont)

UNIT Seamanship: Efficient Deck Hand (SCQF level 6)

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

It is important that the delivery of this Unit is related to common practice in the marine industry. Where candidates have no prior seagoing experience, it would be useful if they could be taken on ship visits, shown relevant video programmes, and exposed to some of the concepts discussed in a practical manner, including a substantial proportion of their training being conducted in seamanship workshops gaining hands on experience with rope and wire work. The main aim of this Unit should be to give the candidates a sound grounding in basic seamanship which will be of use in the work place, and which will provide a firm foundation for work as a seaman on a merchant vessel.

Active learning and teaching approaches should be used wherever possible, and the teaching should be used largely to stimulate discussion, with candidates being encouraged to work in small groups and to contribute to the lesson actively. The importance of safety should be emphasised at every opportunity.

Corresponding to the Learning Outcomes:

- 1 A didactic approach supported by lectures, discussion, films, videos and DVD's, PowerPoint displays with animated graphics.
- 2 Practical participation by students, repeated at frequent intervals throughout the module to reinforce learning. A high standard would be required to ensure safe use of ropes and equipment involving ropework, bosun's chairs and stages. The use of film, video and DVD along with PowerPoint display and animated graphics to assist in particular with derrick, hatch and anchor work.
- 3 Lectures, demonstrations and discussions associated with procedures given in the COSWP, supported by visits to working vessels to watch procedures performed live if possible.

OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

There are opportunities to develop the following Core Skills in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

Communication: Oral at SCQF level 5

In Outcomes 2 and 4 the candidate the candidate will be asked to describe common shipboard procedures orally and they must be able to show that they can get these in the correct sequence to ensure the safety of the vessel and personnel.

Communication: Reading at SCQF level 5

Candidates will be expected to be fully conversant with the contents of the Code of Safe Working Practices for Merchant Seaman and will be required to summarise the contents of the various chapters, either orally or by written assessment.

Problem Solving: Critical Thinking at SCQF level 5

In Outcomes 2 and 3 candidates will be presented with situations where they will have to explain how these can be resolved with the safety of personnel and the vessel uppermost in their thoughts. They will need to consider a response which takes account of the risks involved in any particular task and how the work can be carried out to minimise all risks.

National Unit Specification: support notes (cont)

UNIT Seamanship: Efficient Deck Hand (SCQF level 6)

Working with Others: Working Co-operatively with Others at SCQF level 5

In Outcome 4 candidates will be able to recognize that certain tasks require the cooperation of others to complete them safely. They will be able to appreciate the input of each team member with regards to ensuring that all operations are carried out effectively and safely.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Assessment for this Unit should be in two parts — the first requires the candidate to produce a demonstration piece, comprising standard rope and wire splices, whippings and seizings made by the candidate during the practical workshop sessions, for the assessor to verify satisfactory performance.

The second part of the assessment will be an oral examination comprising a mix of short answer questions and demonstrations by the candidate of practical skills, designed to sample the candidate's knowledge of all four learning Outcomes, and conducted in a practical seamanship workshop.

Centres involved in the delivery of this Unit may wish to collaborate to produce a bank of questions and an assessment checklist, or to produce an assessment support pack for this Unit, with sample assessment materials of a suitable standard.

Centres using this Unit to deliver the underpinning knowledge for an STCW 95 Certificate as an Efficient Deck Hand should contact the UK Maritime and Coastguard Agency and Merchant Navy Training Board (address below), prior to delivering the Unit.

Merchant Navy Training Board
Carthusian Court
12 Carthusian Street
London
EC1M 6EZ

Seafarers Standards Branch
Maritime and Coastguard Agency
Spring Place
105 Commercial Road
Southampton
Hants
SO15 1EG

DISABLED CANDIDATES AND/OR THOSE WITH ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website www.sqa.org.uk/assessmentarrangements.