



National Unit specification: general information

Unit title: Merchant Navy Engineer Officer Safety and Management:
Work Based Learning

Unit code: F9K8 12

Superclass: ZF

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Summary

This Unit is designed to develop a safe and systematic approach of the prospective Merchant Navy Engineer Officer to the working environment found aboard ship. The Unit includes safety awareness and operational management.

Throughout the Unit candidates will be working independently taking responsibility for their own progress, although assistance will be given, as required, by onboard Designated Training Officers and tutors as appropriate.

This Unit is primarily aimed at candidates who intend to seek sea-going employment as a Merchant Navy Deck /Engineer Officer. However it may also be studied by someone with an interest in the subject area.

Outcomes

- 1 Participate in and describe safety procedures onboard a vessel.
- 2 Describe the engineering operational management of a vessel.

Recommended entry

While entry is at the discretion of the centre, candidates would normally be expected to have attained the following, or equivalent:

- ◆ F7HH 12: *Maritime Industry: An Introduction*

General information (cont)

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Credit points and level

2 credits at SCQF level 6 (12 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 points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Core Skills

Opportunities to develop aspects of Core Skills are highlighted in the Support Notes of this Unit specification.

There is no automatic certification of Core Skills or Core Skill components in this Unit.

National Unit specification: statement of standards

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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 the Scottish Qualifications Authority.

Outcome 1

Participate in and describe safety procedures onboard a vessel.

Performance Criteria

- (a) Participate in an emergency/security exercise.
- (b) The intention of the exercise is correctly stated.
- (c) The roles of the individual participants are clearly described.
- (d) The candidate's own role in the exercise is correctly described.
- (e) Explain accurately how the exercise was assessed giving details of the debriefing.
- (f) Appropriate legislation pertaining to the exercise is identified correctly.

Evidence Requirements

Evidence is required of the candidate's ability to describe the purpose and process of two different emergency/security exercises.

The candidate must:

- ◆ participate in two emergency/security exercises onboard ship and correctly describe the purpose and process of two emergency/security exercises
- ◆ correctly state the intention of each exercise
- ◆ correctly describe the roles of the individual participants in each exercise
- ◆ correctly describe their own part in each exercise
- ◆ explain how each exercise was assessed giving details of the debriefing
- ◆ identify appropriate legislation pertaining to each exercise. Evidence must include excerpts from the vessel log and Training Record Book (TRB).

Evidence must be verified by the Onboard Training Officer or Chief Engineer.

National Unit specification: statement of standards (cont)

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Outcome 2

Describe the engineering operational management of a vessel.

Performance Criteria

- (a) Identify correctly the roles of individuals within the engineering department.
- (b) Describe accurately an example of teamwork during an operational procedure aboard.
- (c) Correctly identify legislation for health, safety and environmental regulations.
- (d) Correctly identify potential hazards and assess risk in areas within the engine department.

Evidence Requirements

Evidence is required of the candidate's understanding of the engineering operational management of a vessel.

The candidate must:

- ◆ identify the roles of individuals within the engineering department
- ◆ describe an example of teamwork during an operational procedure aboard
- ◆ correctly identify legislation for health, safety and environmental regulations
- ◆ identify potential hazards and assess risk in areas within the engine department. At least two risk assessments should be reported on using company specific documents.
Evidence must include:
 - excerpts from the vessel log
 - relevant documentation and records
 - legislation and TRB entries.

The reports must be verified by the Onboard Training Officer or Chief Engineer.

National Unit specification: support notes

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

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 80 hours.

Guidance on the content and context for this Unit

The Unit is concerned with the development of engineering trainee officers studying the group award NC Shipping and Maritime Operations. The Unit is designed to reinforce the theory that will have been taught within the NC and it will allow trainee officers the opportunity to complete their MNTB TRB and to use this as a source of evidence for this Unit. The Unit is also based around the national occupational standard A11 and A31 of the STCW 95 convention.

Engineering trainee officers will gain skills in dealing with crew and situations in preparing and undertaking training on a ship. The development of the following skills for a trainee officer are important features: a high degree of self-awareness in relation to examination of skills, abilities, investigating and examining different work routines and conventions; planning and organising; investigating the organisational structure of the ship; ship processes, operation and resources; investigating and evaluating the requirements and potential career progression. It is also designed to give candidates the opportunity to investigate work experience in their chosen career in order that they may make more informed career choices.

Corresponding to outcomes 1-2:

Outcome 1

Candidates should participate in two different emergency/security exercises onboard ship and describe the purpose and process, their role and others' role in the exercises. This Outcome will allow candidates the opportunity to examine the competences required to identify and deal with emergencies/security exercise and demonstrate how to take initial action, follow the required emergency/security procedure and comply with the ship muster requirements.

Outcome 2

Candidates will have an opportunity to examine the operational management of the engineering section of a ship and identify the job roles within it. The candidates will have an opportunity to examine safe work practices and work to the agreed safety and environmental standards onboard ship.

Candidates could negotiate independently with their Onboard Training Officer a suitable programme of activities which will enable him or her to practise the required skills and also to plan and organise it.

National Unit specification: support notes (cont)

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Guidance on learning and teaching approaches for this Unit

The tutor's/Onboard Training Officer's role will be largely consultative and he or she will be a resource for planning, interview techniques, time management advice, planning of the work based evidence, information on health and safety, codes of practice etc. The tutor/Onboard Training Officer may also act as a general mentor should the candidate require support and encouragement.

It is expected that in the course of the unit each candidate will compile a folder of assessment evidence which will consist of extracts from the ship's log, shipping company records, the MNTB training record book and verification of activities and exercises by the Onboard Training Officer/Chief Engineer.

The shipboard experience will be a new environment for many candidates and preparation for candidates should recognise this so that they are thoroughly prepared before commencing their sea time.

It may be beneficial for the tutor to interview candidates prior to their sea time to assist the candidate prepare. In addition an interview after sea time will allow a thorough investigation of the candidate's learning. Tutors should not prompt performance but should create an atmosphere and framework within which candidates are encouraged to speak openly about their progress, reactions in relation to the tasks undertaken and the contribution which the learning activities have made towards their development as officer trainees.

Opportunities for developing Core Skills

In completing the assessment work of Outcome 1 and 2 candidates have the opportunity to develop the component Written Communication (writing) of the Core Skill *Communication* at SCQF level 5. Candidates will have the opportunity to describe activities, their roles and the roles of others. This information will be presented in a portfolio. The specific Core Skill elements that the candidate may have to complete are 'Present all essential ideas/information and supporting detail in a logical and effective order', 'Use a structure which takes account of purpose and audience, and emphasises the main points' and 'Use spelling, punctuation and sentence structures which are consistently accurate'.

Whilst onboard ship candidates will have to interact with their Onboard Training Officer which will develop the component Oral Communication of the Core Skill *Communication* at SCQF level 6. Candidates will have the opportunity to contribute to the Core Skill element 'Respond to others, taking account of their contributions.'

Candidates whilst at sea will have the opportunity in completing assessment work to develop the component Written Communication (reading) of the Core Skill *Communication* at SCQF level 5. Candidates will have the opportunity to contribute to the Core Skill element 'Evaluate the effectiveness of the communication in meeting its purpose'.

National Unit specification: support notes (cont)

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Opportunities for the use of e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

During the unit the candidate is required to contribute to the planning and to complete work experience on board ship during which he or she should assemble a folder of assessment evidence in relation to the outcomes.

The tutor may conduct personal interviews with individual candidates or with groups, as appropriate may draw on relevant evidence from the candidate's assessment folder

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

History of changes to Unit

Version	Description of change	Date

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