

National Unit Specification: general information

UNIT Coastal Navigation 1 (Intermediate 1)

NUMBER DC63 10

COURSE

SUMMARY

This unit is designed to enable candidates to understand the basic elements of coastal navigation and to plan a coastal passage with due regard to safety.

OUTCOMES

- 1 Demonstrate a knowledge of common chart symbols shown on navigational charts.
- 2 Use navigational drawing instruments to measure and lay off position, distance and direction on a chart.
- 3 Demonstrate a knowledge of the terms associated with tides and extract information from navigational charts and tidal publications.
- 4 Demonstrate a knowledge of aids to navigation and their safe use.
- 5 Plan a safe coastal passage.
- 6 Demonstrate a knowledge of sources of marine weather forecasts and their use in safe coastal navigation.

RECOMMENDED ENTRY

Entry is at the discretion of the centre.

Administrative Information

Superclass: ZF

Publication date: June 2003

Source: Scottish Qualifications Authority

Version: 01

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CREDIT VALUE

1 credit at Intermediate 1 (6 SCOTCAT points at SCQF level 4*).

**SCOTCAT 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 SCOTCAT points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

CORE SKILLS

There is no automatic certification of core skills or core skills components for this unit.

Information on the automatic certification of any core skills in this unit is published in *Automatic Certification of Core Skills in National Qualifications* (SQA, publication code BA0906).

National Unit Specification: statement of standards

UNIT Coastal Navigation 1 (Intermediate 1)

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

Demonstrate a knowledge of common chart symbols shown on navigational charts.

Performance criteria

- a) Without reference to NP 5011 the candidate correctly identifies given symbols or abbreviations representing 'dangers' to surface navigation.
- b) Referring to NP 5011 the candidate identifies other symbols.

Evidence requirements

Evidence will consist of a short answer test to demonstrate the candidate's ability to identify a minimum of 6 out of 10 symbols or abbreviations for PC(a) and a minimum of 8 out of 10 other symbols for PC(b).

OUTCOME 2

Use navigational drawing instruments to measure and lay off position, distance and direction on a chart.

Performance criteria

- a) The candidate uses navigational drawing instruments to:
 - ◆ measure and lay off true course, bearing and distance
 - ◆ measure, and plot position by: latitude and longitude, cross bearings, distance and bearing, transit and bearing or transit and distance.

Evidence requirements

Evidence will consist of a practical chart exercise assessed by an observation checklist.

OUTCOME 3

Demonstrate a knowledge of the terms associated with tides and extract information from navigational charts and tidal publications.

Performance criteria

- a) The meaning of each of the following should be correctly stated: chart datum, high and low water, range of tide, springs and neaps, set and rate of tidal stream.
- b) The candidate should be able to:

National Unit Specification: statement of standards (cont)

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- ◆ obtain the times of high and low water for a given port from a tidal publication
- ◆ find the set and rate of the tide by reference to a tidal diamond on a chart

Evidence requirements

Evidence will consist of a short answer test for PC(a) and a written exercise for PC(b).

OUTCOME 4

Demonstrate a knowledge of aids to navigation and their safe use.

Performance criteria

- a) For the magnetic compass the candidate should be able to:
 - ◆ demonstrate a knowledge of the importance of bearings in collision avoidance
 - ◆ demonstrate a knowledge of the difference between True North, Magnetic North and Compass North
- b) For the echo sounder the candidate should be able to:
 - ◆ demonstrate a knowledge of how depths are measured
 - ◆ demonstrate a knowledge of how it may be used as an aid to navigation
- c) For the Global Positioning System (GPS) the candidate should be able to:
 - ◆ demonstrate a knowledge of how it fixes position
 - ◆ demonstrate a knowledge of how it may be used as an aid to navigation
- d) For the radar the candidate should be able to:
 - ◆ demonstrate a knowledge of how it works
 - ◆ demonstrate a knowledge of its uses in safe navigation and its importance in collision avoidance

Evidence requirements

Evidence will consist of a short answer test.

OUTCOME 5

Plan a safe coastal passage.

Performance criteria

The candidate should be able to produce a safe passage plan for a given short coastal voyage requiring at least two course alterations by:

- ◆ selecting the appropriate chart or charts, plotting a passage taking account of under keel clearance and safe distance off, listing true courses to steer and positions to alter course, estimating duration of passage for a vessel at a given speed, listing shore features suitable for checking progress en route.

National Unit Specification: statement of standards (cont)

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Evidence requirements

Evidence will consist of a practical chart exercise assessed by an observation checklist.

OUTCOME 6

Demonstrate a knowledge of sources of marine weather forecasts and their use in safe coastal navigation.

Performance criteria

- a) The candidate should be able to select the correct shipping forecast regions for coastal passages in UK coastal waters.

Evidence requirements

Evidence will consist of a short answer test to demonstrate the candidate's ability to select the correct shipping forecast regions for three coastal passages.

National Unit Specification: support notes

UNIT Coastal Navigation 1 (Intermediate 1)

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 40 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

This unit is designed to give a general introduction to the basics of coastal navigation.

The outcomes will be achieved in a chartroom environment but if a suitable vessel is available the unit can be greatly enhanced by practical experience. Content associated with the outcomes is specified by the performance criteria. The use of charts, chart instruments and nautical publications will form an integral part of the practical elements of the course.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Learning and teaching approaches may be enhanced by the use of ICT, videos, slides and models. Exercises based on local charts with early exposure to charts and chart instruments are desirable. Passage plans may be individual or group exercises. If a suitable vessel is available pupils should be given the opportunity, under supervision, to execute their planned passage.

Actual forecasts for shipping should be used in association with maps of the shipping forecast regions. Use of faxes, telephone, TV, text, internet and radio can be demonstrated 'live'.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

All outcomes must be achieved.

Evidence is required of valid and reliable assessment of satisfactory achievement of the performance criteria specified for each stated outcome.

A pass/fail system will apply.

Candidates must be informed of the tasks which contribute to summative assessment. Candidates who have been unsuccessful in achieving an outcome should have the opportunity to be re-assessed following appropriate remediation, consolidation or reinforcement.

SPECIAL NEEDS

This unit specification is intended to ensure that there are no artificial barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering special alternative outcomes for units. For information on these, please refer to the SQA document *Guidance on Special Assessment Arrangements* (SQA, publication code AA0645).