

## Qualification Unit

This unit forms part of a regulated qualification.

**Unit Title:** Vessel Navigation and Tides

**Unit Reference Number:** M/651/5449

**Level:** Three (3)

**Credit Value:** Six (6)

**Minimum Guided Learning Hours:** 55

Learning Outcome (The Learner will):	Assessment Criterion (The Learner can):
1. Know how to use and care for compasses	1.1 Identify types of compass, their use and care e.g. standard; steering; projector; reflector; transmitting magnetic, gyro
	1.2 Describe the use of azimuth mirrors
	1.3 Take readings from a magnetic compass and identify card graduations in degrees
	1.4 Identify the basic causes of variation and deviation in compass readings
	1.5 Take a compass error using a transit
	1.6 Take readings and compare gyro compass, repeater and magnetic compass
	1.7 Describe how to respond to compass alarms
2. Know how to determine position using a marine navigation chart	2.1 Identify chart symbols, features and abbreviations
	2.2 Identify the navigational properties of the Mercator chart and alternative projections e.g. gnomonic, stereographic
	2.3 Plot a position on a chart by latitude and longitude, bearing and range, using natural scale, distance measurement, chart co-ordinates and geographic datums e.g. WGS84

	2.4	Demonstrate how to use and care for navigation drawing instruments, parallel rules, dividers and compasses
	2.5	Identify alternative charting systems and describe the differences between them
	2.6	Describe how chart accuracy is maintained
3. Understand the causes and features of tides	3.1	Describe different types of tides, their causes and features
	3.2	Describe tidal terminology e.g. chart datum, tidal range
4. Understand buoyage and its purpose	4.1	Describe the need for buoyage
	4.2	Identify the International Association of Lighthouse Authorities (IALA) region A, including marks using shape, colour, topmark and light
	4.3	Demonstrate the direction of buoyage and state the action to take on meeting marks
5. Know how to make a basic passage plan	5.1	Describe the factors to be taken into account when appraising, planning, monitoring and executing a passage at sea
	5.2	Produce a basic passage plan