

| | | | |
|--------------|---------------------------------------|----------------|-----------|
| Title | Develop marine systems designs | | |
| Level | 6 | Credits | 10 |

| | |
|----------------|---|
| Purpose | People credited with this unit standard are able to evaluate and analyse marine systems design requirements and develop marine systems designs. |
|----------------|---|

| | |
|-----------------------|------------------------------------|
| Classification | Boating Industries > Marine Design |
|-----------------------|------------------------------------|

| | |
|------------------------|----------|
| Available grade | Achieved |
|------------------------|----------|

Guidance Information

1 Definitions

Concept drawing (or sketches) are drawings, often free hand used as a way of investigating and communicating design principles and aesthetic concepts, without detailed engineering, or complete drawing development.

Design brief refers to a documented design description of a client's requirements.

Design principles referred to in this unit standard incorporate ergonomics, functionality, practicality, scantlings, aesthetics and design rules.

2 Range

marine systems may include – deck handling systems, sail handling, anchoring, and loading; internal systems including: hydraulics; pneumatics; plumbing; motive power; fuel; gas; firefighting; heating; ventilation; air conditioning; lifting; refrigeration; drainage; fresh water; sailing; electrical and electronic system.

evidence of three marine systems designs with one electrical and electronic system is required.

Outcomes and performance criteria

Outcome 1

Evaluate and analyse marine systems design requirements.

Performance criteria

- 1.1 Client's requirements in the design brief are evaluated and analysed in accordance with design principles.
- 1.2 Concept drawing is produced to meet design brief and design principles.

Outcome 2

Develop marine systems designs.

Performance criteria

- 2.1 Marine systems designs are developed and finalised to meet design brief and design principles.
- 2.2 Finalised designs are evaluated in accordance with the design principles, and any recommendations for design improvements are made.

| | |
|----------------------------|------------------|
| Planned review date | 31 December 2022 |
|----------------------------|------------------|

Status information and last date for assessment for superseded versions

| Process | Version | Date | Last Date for Assessment |
|--------------|---------|----------------|--------------------------|
| Registration | 1 | 17 August 2017 | N/A |

| | |
|--|------|
| Consent and Moderation Requirements (CMR) reference | 0136 |
|--|------|

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact the NZ Marine and Composite Industry Training Organisation training@nzmarine.com if you wish to suggest changes to the content of this unit standard.