

Fields Manufacturing, Engineering and Technology

Review and rollover of *Boating Industries* and *Composites* unit standards

Subfield	Domain	ID
Boating Industries	Boatbuilding	9922, 9923, 9925, 9929 , 9933, 9939 , 10836, 10841, 11794, 11798 , 18166, 18170, 23046, 23049, 23241, 23244, 23247 , 25114, 25344, 26088, 26089, 26097 , 29235, 29236, 29546
	Marine Design	10853-10856, 10858, 10860-10863, 10865-10868 , 10869
	Marine Sales and Services	11746
Composites	Industrial Composites	26562
	Production Composites	<i>3188</i>
	Specification and Design Composites	3187, 3191, 3194, 3195 , 3197

The NZ Marine and Composite Industry Training Organisation (now Marine and Specialised Technologies Academy of New Zealand/MAST) has completed the review and rollover of the unit standards listed above. The unit standards were submitted to NZQA by Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council post the conclusion of the Review of Vocational Education transition process.

Date new versions published

August 2022

Planned review date

December 2027

Summary

MAST reviewed the boating industries and composites unit standards listed above to ensure these are fit-for-purpose for the marine and composites industry. The purpose of the review was to better align these unit standards to the graduate profile outcomes of the New Zealand qualifications relating to the marine and composites industry and also to reflect the current health and safety legislation. Unit standards were reviewed from fourth quarter of 2020 and throughout 2021. Providers with consent to assess were invited for input and feedback via email. Industry and subject matter experts provided feedback and input into the review of these unit standards.

Main changes

- Content of the unit standards and titles were updated to better reflect the standard outcomes and to include the composite sector.
- Guidance information was updated to reflect the changes in legislation, range statements, and definitions.
- Seven new unit standards were developed to support the programme leading to the New Zealand Diploma in Composites Level 6 [Ref: 3059].
- Expiring unit standard 3188 has been rolled over (in italics above) to extend the last date of assessment to 31 December 2025 to support the Composite Level 6 programme.
- Unit standards listed above in **bold** were recommended to expire and will not be replaced.
- Standard setting details were updated to reflect the change of standard setting body to Hanga-Aro-Rau Workforce Development Council from 4 October 2021.

Category D unit standards will expire at the end of December 2025

The last date for assessment of superseded versions of Category B unit standards are December 2024

Key to review category	
A	Dates changed, but no other changes are made - the new version of the standard carries the same ID and a new version number
B	Changes made, but the overall outcome remains the same - the new version of the standard carries the same ID and a new version number
C	Major changes that necessitate the registration of a replacement standard with a new ID
D	Standard will expire and not be replaced

Manufacturing > Boating Industries > Boatbuilding

ID	Title	Level	Credit	Review Category
9922	Produce templates or patterns used in the marine industry	3	4	B
9923	Install internal and external boat hardware fittings	4	4	B
9925	Manage contracts for the repair, restoration, and structural alteration of boats	6	20	D
9929	Commission a boat	7	12	D
9933	Install exterior boat joinery, hatches, and components	4	10	B
9939	Build boat frameworks in timber	4	20	D
10836	Produce scale drawings of boat surfaces from corrected offsets	2	6	B
10841	Produce a half-model to scale	4	8	B
11794	Install marine electrical and electronic systems and equipment	3	20	B
11798	Design marine electronic systems	7	20	D
18166	Participate in a project team in a marine or composite workplace	2	5	B
18170	Contribute to a project team in a marine or composite workplace	3	5	B
23046	Demonstrate knowledge of marine or composite paint system application	3	4	B
23049	Demonstrate knowledge of composite technology for a marine or composite industry	4	5	B
23241	Loft a boat hull	4	10	B
23244	Apply health and safety procedures in a marine or composite workplace	3	5	B
23247	Describe upholstery applications on production trailer boats	3	3	D
25114	Mask and protect marine or composite surfaces for painting	3	5	B
25344	Demonstrate knowledge of marine or composite workplaces	2	3	B
26088	Demonstrate knowledge of regulatory compliance in boatbuilding Explain regulatory compliance in boatbuilding	5	5	B
26089	Explain and plan project scope and control processes in a boatbuilding project Explain and plan project scope and control processes in a marine or composite project	6	12	B
26097	Shutdown and isolate hydraulic equipment on a vessel being constructed or maintained	5	3	D
29235	Describe and apply filling and fairing technology	3	15	B

ID	Title	Level	Credit	Review Category
29236	Operate mechanical plant used in the marine or composite industry Operate mechanical plant used in a marine or composite workplace	4	10	B
29546	Collaborate within a project team in the marine or composite industry	4	5	B

Manufacturing > Boating Industries > Marine Design

ID	Title	Level	Credit	Review Category
10853	Produce design brief for marine design	5	30	D
10854	Produce a preliminary conceptual marine design	7	30	D
10855	Produce developed marine designs	6	50	D
10856	Produce developed designs for underwater appendages	6	30	D
10858	Produce developed designs for spars and derricks	6	30	D
10860	Produce developed design for interior and exterior marine styling	6	50	D
10861	Produce developed design for sails	6	40	D
10862	Produce working drawings from developed designs for marine designs	5	6	D
10863	Produce working drawings from developed designs for underwater appendages	5	20	D
10865	Produce working drawings from developed designs for spars and derricks	5	15	D
10866	Produce working drawings from developed designs for marine systems	5	15	D
10867	Produce working drawings from developed designs for interior and exterior marine styling	5	15	D
10868	Produce working drawings from developed designs for sails	5	20	D
10869	Validate characteristics of marine products against declared specifications Validate characteristics and performance of marine or composite products against declared specifications	7	35	B

Manufacturing > Boating Industries > Marine Sales and Services

ID	Title	Level	Credit	Review Category
11746	Identify defects in timber boats	6	6	D

Manufacturing > Composites > Industrial Composites

ID	Title	Level	Credit	Review Category
26562	Explain composite project control	4	5	B
33056	Repair damaged or faulty complex composite structures	6	15	New

Manufacturing > Composites > Production Composites

ID	Title	Level	Credit	Review Category
33051	Apply a problem-solving model to familiar and unfamiliar complex composite problems	6	20	New
33052	Generate and apply corrective iterative strategies to prevent identified operational composite process faults	5	15	New
33053	Demonstrate knowledge of reaction rates and mechanisms in composite manufacture	5	5	New
33054	Generate and apply corrective iterative strategies to prevent identified composite manufacturing product defects	5	15	New
33055	Evaluate and apply a self-reflection review in a composite manufacturing setting	5	6	New
33057	Test volatile organic compounds in a composite workplace for safety and worker protection	6	10	New

Manufacturing > Composites > Specification and Design Composites

ID	Title	Level	Credit	Review Category
3187	Produce a laminate specification for composites Produce a laminate specification for a composite product	6	12	B
3191	Design an item for composite production technology	6	25	D
3194	Produce plug or pattern specification for composites	5	12	D
3195	Produce a mould specification for composites	5	12	D
3197	Produce a process specification for a composite Produce a design process specification for a composite product	6	7	B