



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **AUR20611 Certificate II in Marine**

**Release: 2**

## AUR20611 Certificate II in Marine

### Modification History

**Three new AUR units of competency:**

AURTTE3001  
AURTTM3001  
AURTTM3002

**Four AUR units of competency updated:**

AURTTM3003 replaces AURT301357A  
AURTTM3004 replaces AURT301383A  
AURTTM3008 replaces AURT301383A  
AURTTM3011 replaces AURT301483A

**Seven imported units of competency updated:**

BSBFLM312C replaces BSBFLM312B  
TLID1001A replaces TLID107C  
TLID2004A replaces TLID407C  
TLID2010A replaces TLID1007C  
TLID2013A replaces TLID1307C  
TLID3011A replaces TLID1107C  
TLILIC2001A replaces TLILIC108A

### Description

This qualification covers the skills and knowledge required to perform a limited range of mechanical tasks within the marine service and repair industry. It is suitable for entry into the marine service and repair sector.

***Job roles/employment outcomes***

The employment outcomes of AUR20611 Certificate II in Marine would see an individual working in the marine mechanical service and repair industry.

The marine mechanic would be typically involved in tasks involving defined and known routines, methods and procedures and providing solutions to a limited range of predictable problems. Some complex and non-routine activities involving autonomy and judgement in structured and stable contexts may be expected.

***Application***

This qualification is suitable for an Australian Apprenticeship pathway.

## **Pathways Information**

### ***Pathways into the qualification***

This qualification may be accessed by direct entry. Credit will be granted towards this qualification by those who have completed AUR10105 Certificate I in Automotive or other relevant qualifications. Credit for this qualification may also include units contained within relevant skill sets.

### ***Pathways from the qualification***

Further training pathways from this qualification include AUR30511 Certificate III in Marine or other relevant qualifications.

## **Licensing/Regulatory Information**

### ***Licensing considerations***

There are no specific licences that relate to this qualification. However, some units in this qualification may have licensing or regulatory requirements, depending on the work context. Local regulations should be checked for details.

## **Entry Requirements**

Not Applicable

## Employability Skills Summary

### EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

The following table contains a summary of the Employability Skills as identified by the Marine service and repair industry for this qualification. The Employability Skills facets described here are broad industry requirements that may vary depending on qualification packaging options.

Employability Skill	Industry/enterprise requirements for this qualification include:
Communication	<ul style="list-style-type: none"> <li>• understanding and carrying out verbal instructions from supervisors and others</li> <li>• reading and understanding workplace documents</li> <li>• completing written workplace documentation, forms, logs and diaries</li> <li>• sharing work-related information with other team members</li> <li>• communicating with people from a range of social, cultural and ethnic backgrounds</li> <li>• seeking and acting upon feedback</li> </ul>
Teamwork	<ul style="list-style-type: none"> <li>• contributing positively to the work team environment</li> <li>• working effectively with others in a socially diverse environment</li> <li>• respecting and understanding the views of others</li> <li>• giving and receiving feedback</li> </ul>
Problem solving	<ul style="list-style-type: none"> <li>• recognising a problem or a potential problem within a marine component or system or with equipment</li> <li>• seeking information and assistance to solve problems outside own area of responsibility</li> <li>• solving problems within own area of responsibility</li> </ul>
Initiative and enterprise	<ul style="list-style-type: none"> <li>• making adjustments to improve own performance</li> <li>• suggesting ideas for workplace improvement to supervisors and team members</li> <li>• positively adapting to changes in workplace procedures or arrangements</li> <li>• taking positive action to report hazards or risk situations to supervisors</li> </ul>
Planning and organising	<ul style="list-style-type: none"> <li>• understanding how own job role fits into the wider workplace context</li> <li>• planning daily work tasks to work safely and manage risks according to workplace procedures</li> </ul>
Self-management	<ul style="list-style-type: none"> <li>• following workplace safety requirements and other policy and procedures</li> <li>• managing own time</li> <li>• completing known delegated tasks on time</li> </ul>

<b>EMPLOYABILITY SKILLS QUALIFICATION SUMMARY</b>	
	<ul style="list-style-type: none"><li>• completing non-routine tasks as requested</li><li>• selecting appropriate equipment and materials</li><li>• asking for advice and assistance</li></ul>
Learning	<ul style="list-style-type: none"><li>• identifying personal strength and weaknesses</li><li>• positively accepting opportunities to learn</li><li>• acting upon feedback to improve work performance</li><li>• asking questions to gain information</li></ul>
Technology	<ul style="list-style-type: none"><li>• appropriately setting up technological equipment</li><li>• using workplace diagnosis technology</li><li>• recognising and reporting faulty equipment</li></ul>

## Packaging Rules

### Packaging Rules

To be awarded the AUR20611 Certificate II in Marine, competency must be achieved in **eighteen (18)** units of competency.

- **four(4)** core units of competency
- **fourteen (14)** elective units of competency, as specified below:
  - a minimum of **ten (10)** specialist elective units from Group A
  - a maximum of **four (4)** elective units from Group B, drawn in any combination from:
    - units not already chosen from Group A
    - Group B units listed
    - a maximum of three (3) relevant units available in this Training Package, other endorsed Training Packages and accredited courses, where those units are aligned to Certificates II and III
  - a maximum of **three (3)** elective units may be selected from units aligned to Certificate III qualifications.

**Note:** Where prerequisite units are identified, they must be counted in the total number of units required for completion of the qualification

The following pairs of units must not be chosen together when achieving this qualification:

MEM05003B	Perform soft soldering
AURV223808A	Carry out soft soldering techniques

MEM05004C	Perform routine oxy acetylene welding
AURV223608A	Carry out oxy acetylene welding, thermal cutting and thermal heating procedures

MEM05007C	Perform manual heating and thermal cutting
AURV223608A	Carry out oxy acetylene welding, thermal cutting and thermal heating procedures

MEM05017D	Weld using gas metal arc welding process
AURV281308A	Carry out gas metal arc (MIG) welding procedures

**Core units of competency**

- Complete the following the **four (4)** units of competency.

Unit code	Unit title
AURC270103A	Apply safe working practices
AURR271103A	Apply environmental regulations in the marine service industry
AURT270278A	Use and maintain workplace tools and equipment
MSAENV272B	Participate in environmentally sustainable work practices

**Elective units of competency****Group A: Specialist electives**

- Complete a minimum of **ten (10)** units of competency from the following list.

Unit code	Unit title
AURE320031B	Install marine electrical systems and components
AURE320066B	Diagnose and repair marine electrical systems and components
AURE321831B	Install marine electronic systems and components
AURE321832A	Test, diagnose and repair marine electronic systems and components
AURR201103A	Service outboard engines and components
AURR201104A	Service inboard engines and components
AURR207670B	Service marine outboard and stern drive transmissions
AURR207770B	Service marine inboard transmissions
AURR213670A	Service inboard propeller drive systems
AURR214170B	Service jet drive propulsion systems
AURR246870B	Service deck, hull and cabin equipment
AURR301102A	Diagnose and repair outboard engines and components

Unit code	Unit title
AURR301105A	Diagnose and repair inboard engines and components
AURR307684B	Diagnose and repair marine outboard and stern drive transmissions
AURR307784B	Diagnose and repair marine inboard transmissions
AURR313631A	Install inboard propeller drive systems
AURR313684B	Diagnose and repair inboard propeller drive systems
AURR314131B	Install jet drive propulsion systems
AURR314166B	Diagnose and repair jet drive propulsion systems
AURR346108B	Carry out hull repairs
AURR346131B	Install marine engines, controls and instruments
AURR346267A	Diagnose and repair marine steering systems
AURR346336A	Launch and recover a vessel using a trailer
AURR346435B	Launch and recover vessel from crane, gantry and forklift
AURR346543A	Moor a motor driven vessel
AURR346650A	Winterise vessel and engine systems
AURR346660B	Recommission vessel systems
AURR346760B	Recommission marine engine systems
AURR346866B	Repair deck, hull and cabin equipment
AURR346931A	Water test a vessel
AURR346975B	Water test engines in tanks

### Group B: Other electives

- Complete a maximum of **four (4)** units of competency, drawn in any combination from:
  - units not already chosen from Group A
  - Group B units listed below



- a maximum of **three (3)** relevant units available in this Training Package, other endorsed Training Packages and accredited courses, where those units are aligned to Certificates II and III.

### Brakes

Unit code	Unit title
AURE311666A	Repair electric braking systems
AURT210170A	Inspect and service braking systems
AURT310166A	Repair hydraulic braking systems

### Electrical

Unit code	Unit title
AURE218664A	Remove and replace electrical/electronic units/assemblies
AURE218670A	Service, maintain or replace batteries
AURE218676A	Test, service and charge batteries
AURE218708A	Carry out repairs to single electrical circuits
AURE219331A	Install, test and repair low voltage wiring/lighting systems
AURE219531A	Install ancillary electrical components
AURE220140A	Manufacture and repair wiring harness/looms
AURE224008A	Carry out soldering of electrical wiring/circuits
AURE318866A	Repair electrical systems
AURE318966A	Repair instruments and warning systems
AURE319145A	Overhaul charging system alternators
AURE319166B	Repair charging systems
AURE319245A	Overhaul starting motors
AURE319266B	Repair starting systems

### Electronic

<b>Unit code</b>	<b>Unit title</b>
AURE321171A	Service and repair electronic spark ignition engine management systems
AURE321771A	Service and repair electronic compression ignition engine management systems
AURE321971A	Inspect, service and repair electronic management, monitoring and tracking systems

### **Ignitions**

<b>Unit code</b>	<b>Unit title</b>
AURE320666B	Repair ignition systems

### **Engines, systems and transmissions**

<b>Unit code</b>	<b>Unit title</b>
AURT200368A	Select and use bearings, seals, gaskets, sealants and adhesives
AURT201164A	Remove and install engine assemblies
AURT201170A	Inspect and service engines
AURT202166B	Repair cooling systems
AURT202170B	Inspect and service cooling systems
AURT203170B	Service petrol fuel systems
AURT203670B	Service diesel fuel injection systems
AURT205123A	Fabricate exhaust system/components
AURT205166A	Repair exhaust system components
AURT303166B	Repair petrol fuel systems
AURT303666A	Repair diesel fuel systems
AURT304666A	Repair and replace emission control systems
AURT305671A	Inspect and repair engine forced induction systems
AURT306170A	Inspect, service and/or repair clutch assemblies and associated

<b>Unit code</b>	<b>Unit title</b>
	operating system components
AURT403145B	Overhaul petrol fuel system components
AURT403645A	Overhaul diesel fuel injection systems
AURTTTE3001	Apply knowledge of engine science
AURTTM3001	Operate and monitor computer numerical control machines
AURTTM3002	Repair bearing tunnels and connecting rods in engines
AURTTM3003	Apply metal to rebuild engine components
AURTTM3004	Assemble engine blocks and sub-assemblies
AURTTM3008	Dismantle and evaluate engine blocks and sub-assemblies
AURTTM3011	Recondition engine cylinder heads

### **Environmental**

<b>Unit code</b>	<b>Unit title</b>
AURC272003A	Apply environmental regulations and best practice in a workplace or business
AURT271781A	Implement and monitor environmental regulations in the automotive mechanical industry

### **General mechanical**

<b>Unit code</b>	<b>Unit title</b>
AURC252103A	Apply basic automotive troubleshooting processes
AURT200108A	Carry out servicing operations
AURT225667A	Use and maintain measuring equipment
AURT309166A	Repair hydraulic systems
AURT366308A	Carry out advanced diagnostic procedures

### **Common**

<b>Unit code</b>	<b>Unit title</b>
AURC251179A	Write routine texts in the workplace and complete automotive documentation
AURC251356A	Read in the workplace
AURC251677A	Use numbers in the workplace
AURC252327A	Identify, clarify and resolve problems
AURC261314A	Contribute to quality work outcomes
AURC270889A	Communicate business information
AURC270688A	Work effectively with others
AURC270789A	Communicate effectively in the workplace
AURC359350A	Conduct information sessions
AURC361101A	Adapt work processes to new technologies
AURC361337A	Maintain quality systems
AURC359554A	Provide technical guidance
AURC361230A	Inspect technical quality of work
BSBCMN311B	Maintain workplace safety
BSBFLM312C	Contribute to team effectiveness
BSBWOR202A	Organise and complete daily work activities
BSBWOR301A	Organise personal work priorities and development
HLTFA301B	Apply first aid
MEM09002B	Interpret technical drawing
MEM12023A	Perform engineering measurements
MEM18001C	Use hand tools
MEM18002B	Use power tools/hand held operations
TAEDEL301A	Provide work skill instruction

**Sales, warehousing, purchasing and storage**

Unit code	Unit title
TLID2010A	Operate a forklift
TLILIC2001A	Licence to operate a forklift truck
TLID3011A	Conduct specialised forklift operations
TLID1001A	Shift materials safely using manual handling methods
TLID2004A	Load and unload goods/cargo
TLID2013A	Move materials mechanically using automated equipment

**Steering**

Unit code	Unit title
AURT215130A	Inspect steering systems

**Trailers**

Unit code	Unit title
AURT237272A	Service and repair trailers up to 4.5 tonnes
AURT337119A	Drive and manoeuvre trailer(s)

**Welding**

Unit code	Unit title	Prerequisites
AURV223608A	Carry out oxy acetylene welding, thermal cutting and thermal heating procedures	
AURV223808A	Carry out soft soldering techniques	
AURV281108A	Carry out manual metal arc welding procedures	
AURV281208A	Carry out brazing procedures	
AURV281308A	Carry out gas metal arc (MIG) welding procedures	
AURV281408A	Carry out gas tungsten arc (TIG) welding	

<b>Unit code</b>	<b>Unit title</b>	<b>Prerequisites</b>
	procedures	
AURV281508A	Carry out spot welding procedures	
AURV323908A	Carry out thermoplastic welding procedures	
MEM05050B	Perform routine gas metal arc welding	
MEM05004C	Perform routine oxy acetylene welding	
MEM05003B	Perform soft soldering	
MEM05007C	Perform manual heating and thermal cutting	
MEM05017D	Weld using gas metal arc welding process	MEM05050B MEM05051A MEM05052A MEM12023A MEM18001C MEM18002B MEM09002B