



**Australian Government**

# **AUR31112 Heavy Commercial Vehicle Mechanical Technology**

**Release 1**

# **AUR31112 Certificate III in Heavy Commercial Vehicle Mechanical Technology**

## **Modification History**

<b>Release</b>	<b>Comment</b>
<b>Release 1</b>	Replaces AUR30405 Certificate III in Automotive Mechanical Technology

## **Description**

This qualification covers the skills and knowledge required to perform a broad range of tasks on a variety of heavy commercial vehicles within the automotive service and repair sector.

### **Job roles and employment outcomes**

The Certificate III in Heavy Commercial Vehicle Mechanical Technology is intended to prepare new employees or recognise and develop existing workers performing mechanical work in the automotive heavy commercial vehicle service and repair sector.

Employment outcomes targeted by this qualification include:

- heavy commercial vehicle technicians

### **Application**

This qualification is suitable for an Australian Apprenticeship pathway.

## **Pathways Information**

### **Pathways into the qualification**

Credit may be granted towards this qualification by those who have completed AUR20512 Certificate II in Automotive Servicing Technology, AUR20712 Certificate II in Automotive Vocational Preparation or other relevant qualifications.

### **Pathways from the qualification**

Further training pathways from this qualification include AUR40212 Certificate IV in Automotive Mechanical Diagnosis, AUR40812 Certificate IV in Automotive Mechanical Overhauling or other relevant qualifications.

## **Licensing/Regulatory Information**

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**

This qualification may be accessed by direct entry.

## Employability Skills Summary

### EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

The following table contains a summary of the employability skills as identified by the automotive 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:
<b>Communication</b>	<ul style="list-style-type: none"> <li>clearly communicating workplace information and ideas with workplace colleagues (verbal and non-verbal), including use of automotive terms</li> <li>completing workplace reports</li> <li>using and contributing to workplace procedures</li> <li>maintaining workplace records</li> <li>communicating with colleagues and clients to handle verbal enquiries, such as clarifying instructions and responding to requests for information</li> <li>interpreting the needs of customers</li> <li>reading and interpreting workplace related documentation</li> </ul>
<b>Teamwork</b>	<ul style="list-style-type: none"> <li>identifying and describe own role and role of others</li> <li>working within a team</li> <li>working with diverse individuals and groups</li> <li>applying knowledge of own role to complete activities efficiently to support team activities and tasks</li> </ul>
<b>Problem solving</b>	<ul style="list-style-type: none"> <li>recognising a workplace problem or a potential problem and take action</li> <li>determining problems needing priority action</li> <li>referring problems outside area of responsibility to appropriate person and suggesting possible causes</li> <li>seeking information and assistance as required to solve problems</li> <li>using a range of problem-solving techniques</li> <li>taking action to resolve concerns</li> <li>developing practical responses to common breakdowns in workplace systems and procedures</li> </ul>
<b>Initiative and enterprise</b>	<ul style="list-style-type: none"> <li>adapting to new and emerging situations in the workplace</li> <li>being proactive and creative in responding to workplace problems, changes and challenges</li> </ul>
<b>Planning and organising</b>	<ul style="list-style-type: none"> <li>planning own work requirements and prioritising actions to achieve required outcomes and ensure tasks are completed on time</li> <li>identifying risk factors and taking action to minimise risk</li> </ul>
<b>Self-management</b>	<ul style="list-style-type: none"> <li>selecting and using appropriate equipment, materials, processes</li> </ul>

**EMPLOYABILITY SKILLS QUALIFICATION SUMMARY**

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<b>Employability Skill</b>	<b>Industry/enterprise requirements for this qualification include:</b>
	<ul style="list-style-type: none"> <li>and procedures</li> <li>• recognising limitations and seeking timely advice</li> <li>• planning own work requirements, setting own work program and managing time to ensure tasks are completed on time</li> <li>• following workplace documentation, such as codes of practice or operating procedures</li> </ul>
<b>Learning</b>	<ul style="list-style-type: none"> <li>• asking questions to gain information</li> <li>• identifying sources of information, assistance and expert knowledge to expand knowledge, skills and understanding</li> <li>• participating in self-improvement activities</li> <li>• participating in development of workplace continuous improvement strategies</li> <li>• helping others develop competency</li> </ul>
<b>Technology</b>	<ul style="list-style-type: none"> <li>• operating diagnostic and test equipment</li> <li>• performance testing of components, systems and equipment</li> <li>• using tools and equipment efficiently and safely</li> <li>• storing and caring for components, parts, tools, test equipment and support equipment</li> <li>• using business technology to collect, analyse and provide information</li> </ul>

## Packaging Rules

To be awarded this qualification, competency must be demonstrated in **36 units** of competency, consisting of:

- **23 core units**

plus

- **13 elective units**, of which:

- up to **13** elective units may be chosen from the elective units listed below
- up to **6** elective units may be chosen from a Certificate II qualification or above in this Training Package or another endorsed Training Package or accredited course, provided that the units chosen contribute to the vocational outcome of this qualification and do not duplicate the outcome of another unit chosen for the qualification.

### Core units

Unit code	Unit title
<b>Common - Environment</b>	
AURAEA3003	Monitor environmental and sustainability best practice in the automotive mechanical industry
<b>Common - Health and Safety</b>	
AURASA2002	Apply safe working practices in an automotive workplace
<b>Electrical - Technical - Electrical and Electronic</b>	
AURETR2012	Test and repair basic electrical circuits
AURETR3022	Diagnose and repair vehicle dynamic control systems
AURETR3024	Diagnose and repair electronic compression ignition engine management systems
AURETR3025	Test, charge and replace batteries
AURETR3029	Diagnose and repair charging systems
AURETR3030	Diagnose and repair starting systems
<b>Mechanical - Heavy Vehicle - Technical - Brakes</b>	
AURHTB3001	Repair air braking systems
<b>Mechanical - Heavy Vehicle - Technical - Steering and Suspension</b>	
AURHTD3002	Repair steering systems (heavy vehicle)

Unit code	Unit title
AURHTD3003	Repair suspension systems (heavy vehicle)
<b>Mechanical - Heavy Vehicle - Technical - Engines</b>	
AURHTE3002	Repair engines and associated engine components (heavy vehicle)
<b>Mechanical - Heavy Vehicle - Technical - Driveline and Final Drives</b>	
AURHTQ3003	Repair final drive - driveline (heavy vehicle)
<b>Mechanical - Heavy Vehicle - Technical - Transmission</b>	
AURHTX3001	Repair transmissions - manual (heavy vehicle)
<b>Mechanical - Heavy Vehicle - Technical - Emission and Exhaust</b>	
AURHTZ3001	Diagnose and repair heavy vehicle emission control systems
<b>Mechanical Miscellaneous - Technical</b>	
AURTTA2004	Carry out servicing operations
AURTTA2006	Service hydraulic systems
AURTTA3018	Carry out diagnostic procedures
<b>Mechanical Miscellaneous - Technical - Cooling Systems</b>	
AURTTC3003	Diagnose and repair cooling systems
<b>Mechanical Miscellaneous - Technical - Fuel Systems</b>	
AURTTF2002	Service diesel fuel injection systems
AURTTF3005	Inspect and repair engine forced induction systems
<b>Mechanical Miscellaneous - Technical - Tools and Equipment</b>	
AURTTK2002	Use and maintain workplace tools and equipment
<b>Mechanical Miscellaneous - Technical - Driveline and Final Drives</b>	
AURTTQ2001	Service final drive assemblies

### Elective units

Unit code	Unit title
<b>Common - Foundation Skills</b>	
AURAF2003	Communicate effectively in an automotive workplace
<b>Common - Management, Leadership and Supervision</b>	
AURAMA2001	Work effectively with others
<b>Electrical - Technical - Electrical and Electronic</b>	
AURETR3043	Service and repair electronic body management systems
AURETR3044	Service and repair electronic drive management systems
<b>Electrical - Technical - Air conditioning and HVAC</b>	
AURETU2003	Service air conditioning and HVAC systems
AURETU3004	Diagnose and repair air conditioning and HVAC systems
AURETU3005	Retrofit and modify air conditioning and HVAC systems
<b>Mechanical - Heavy Vehicle - Technical - Braking</b>	
AURHTB3002	Diagnose and repair heavy vehicle hydraulic braking systems
AURHTB3007	Diagnose and repair heavy vehicle electronic braking systems
<b>Mechanical - Heavy Vehicle - Technical - Steering and Suspension</b>	
AURHTD3004	Carry out wheel alignment operations (heavy vehicle)
<b>Mechanical - Heavy Vehicle - Technical - Engine</b>	
AURHTE2001	Remove and install heavy vehicle engine assemblies
<b>Mechanical - Heavy Vehicle - Technical - Wheels and Tyres</b>	
AURHTJ2003	Remove, inspect and refit heavy vehicle wheel assemblies
AURHTJ2006	Remove, inspect, repair and fit tyres and tubes (heavy)
<b>Mechanical - Heavy Vehicle - Technical - Driveline and Final Drives</b>	
AURHTQ3002	Repair final drive assemblies (heavy vehicle)
<b>Mechanical - Heavy Vehicle - Technical - Transmission</b>	



Unit code	Unit title
AURHTX3003	Repair transmissions - automatic (heavy vehicle)
AURHTX3004	Diagnose and repair heavy vehicle clutch systems
<b>Mechanical Miscellaneous - Technical</b>	
AURTTA2005	Select and use bearings, seals, gaskets, sealants and adhesives
AURTTA3013	Repair hydraulic systems
AURTTA3014	Assemble and install pneumatic systems and components
<b>Mechanical Miscellaneous - Technical - Brakes</b>	
AURTTB2001	Inspect and service braking systems
AURTTB2004	Inspect and service air braking systems
<b>Mechanical Miscellaneous - Technical - Steering and Suspension</b>	
AURTTD2002	Inspect and service steering systems
AURTTD2004	Inspect and service suspension systems
<b>Mechanical Miscellaneous - Technical - Engine</b>	
AURTTE2004	Inspect and service engines
<b>Mechanical Miscellaneous - Technical - Fuel Systems</b>	
AURTTF3004	Repair diesel fuel injection systems
<b>Mechanical Miscellaneous - Technical - Tools and Equipment</b>	
AURTTK2001	Use and maintain measuring equipment in an automotive workplace
<b>Mechanical Miscellaneous - Technical - Transmission</b>	
AURTTX2002	Inspect and service transmissions (manual)
AURTTX2003	Inspect and service transmissions (automatic)
<b>Mechanical Miscellaneous - Technical - Emission and Exhaust</b>	
AURTTZ2002	Repair exhaust system components

Unit code	Unit title
<b>Vehicle Body - Technical - Welding, Grinding, Machining and Soldering</b>	
AURVTW2001	Carry out manual metal arc welding procedures
AURVTW2003	Carry out gas metal arc welding procedures
AURVTW2004	Carry out gas tungsten arc welding procedures
AURVTW2008	Carry out oxy acetylene welding, thermal cutting and thermal heating procedures

## Custom Content Section

Not applicable.