



Australian Government

AUR30912 Certificate III in Motorsport Technology

Release 2

AUR30912 Certificate III in Motorsport Technology

Modification History

Release	Comment
Release 1	Replaces AUR30911 Certificate III in Motorsport
Release 2	Prerequisites updated for AURMKA4001 Two new units added to elective bank: AURLTX3003 AURTTF3005

Description

This qualification covers the skills and knowledge required to service and repair the mechanical parts, transmission and suspension systems of vehicles within the motorsport sector. It is suitable for entry into the automotive motorsport service and repair sector.

Job roles and employment outcomes

The Certificate III in Motorsport Technology offers training to service and repair the mechanical components of motorsport vehicles, and to operate sustainably and safely within a motorsport environment.

Employment outcomes targeted by this qualification include:

- a number three mechanic within a V8 Supercar team
- a vehicle service and repair technician within a motorsport race team
- service/pit crew race team member
- an opportunity to branch into different roles within a race team which may include data technician, engine technician, driveline technician, machinist, fabricator or promotional activities.

Application

This qualification is typically used to develop employees or recognise and develop existing workers who are performing mechanical technology service and repair tasks in the motorsport sector of the automotive industry.

They would be expected to perform a range of skilled operations involving known routines, methods and procedures and take some accountability for the quality of outcomes. Some complex and non-routine activities involving individual responsibility or autonomy and/or collaboration with others may be expected.

Training programs for this qualification are suitable to be undertaken as part of a formal training contract with an employer under an Australian Traineeship arrangement.

Pathways Information

Pathways into the qualification

Credit may be granted towards this qualification by those who have completed AUR21012 Certificate II in Motorsport Technology, 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 AUR40312 Certificate IV in Motorsport Technology, 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 for this qualification as identified by the motorsport 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"> clearly communicating workplace information to others (verbal and non-verbal), including use of automotive terms completing workplace reports communicating ideas and information with workplace colleagues using and contributing to workplace procedures maintaining workplace records communicating with colleagues and clients to handle verbal enquiries, such as clarifying instructions, and responding to requests for information communicating with people who speak languages other than English and in a cross cultural context interpreting the needs of customers reading and interpreting workplace-related documentation
Teamwork	<ul style="list-style-type: none"> identifying and describing own role and role of others working within a team working with diverse individuals and groups applying knowledge of own role to complete activities efficiently to support team activities and tasks
Problem solving	<ul style="list-style-type: none"> recognising a workplace problem or a potential problem and taking action determining problems needing priority action referring problems outside area of responsibility to appropriate person and suggesting possible causes seeking information and assistance, as required, to solve problems using a range of problem solving techniques taking action to resolve concerns developing practical responses to common breakdowns in workplace systems and procedures
Initiative and enterprise	<ul style="list-style-type: none"> adapting to new and emerging situations in the workplace being proactive and creative in responding to workplace problems, changes and challenges

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

The following table contains a summary of the employability skills for this qualification as identified by the motorsport 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:
Planning and organising	<ul style="list-style-type: none"> • prioritising actions to achieve required outcomes • planning own work requirements • allocating resources to workplace tasks and requirements • identifying risk factors and take action to minimise risk
Self-management	<ul style="list-style-type: none"> • selecting and using appropriate equipment, materials, processes and procedures • recognising limitations and seek timely advice • planning own work requirements, set own work program and manage time to ensure tasks are done on time • following workplace documentation, such as codes of practice or operating procedures
Learning	<ul style="list-style-type: none"> • asking questions to gain information • identifying sources of information, assistance and expert knowledge to expand knowledge, skills and understanding • participating in self-improvement activities • participating in development of workplace continuous improvement strategies • helping others develop competency
Technology	<ul style="list-style-type: none"> • selecting and using appropriate equipment and materials • operating diagnostic and test equipment • performance testing of components, systems and equipment • using tools and equipment efficiently and safely • storing and caring for components, parts, tools, test equipment and support equipment

Packaging Rules

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

- **21 core units**

plus

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

- up to **15** 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	Prerequisites
Common -Environment		
AURAEA3003	Monitor environmental and sustainability best practice in the automotive mechanical industry	
Electrical - Technical - Electrical and Electronic		
AURETR3023	Diagnose and repair electronic spark ignition engine management systems	
Mechanical - Light Vehicle - Technical - Steering and Suspension		
AURLTD3006	Carry out wheel alignment operations (light vehicle)	
Motorsport - Support and Logistics		
AURMBA3002	Load and unload a competition vehicle and support equipment	
Motorsport - Officiating		
AURMDA2002	Assist with motorsport officiating duties	
Motorsport - Management, Leadership and Supervision		
AURMMA2001	Operate in a motorsport environment	
AURMMA3007	Follow motorsport event and team safety requirements	
AURMMA3008	Coordinate operations of a motorsport team	

Unit code	Unit title	Prerequisites
Motorsport - Technical		
AURMTA3002	Assemble and prepare a competition vehicle	AURLTD3006 AURMTA3006 AURMTA3007
AURMTA3004	Perform competition vehicle preparation procedures at an event	AURMTA3002
AURMTA3005	Perform pit lane and service area operations	
AURMTA3006	Perform torquing and fastening	
AURMTA3007	Conduct non-destructive testing	
AURMTA3009	Collect and log motorsport data	
Motorsport - Technical - Fabrication		
AURMTS3001	Construct hose and pipe assemblies for competition vehicles	
Mechanical Miscellaneous - Technical		
AURTTA3018	Carry out diagnostic procedures	
Mechanical Miscellaneous - Technical - Brakes		
AURTTB2001	Inspect and service braking systems	
Mechanical Miscellaneous - Technical - Steering and Suspension		
AURTTD2004	Inspect and service suspension systems	
Mechanical Miscellaneous - Technical - Engines		
AURTTE2004	Inspect and service engines	
Mechanical Miscellaneous - Technical - Driveline and Final Drives		
AURTTQ2003	Service final drive (driveline)	
Mechanical Miscellaneous - Technical - Transmission		
AURTTX2002	Inspect and service transmissions (manual)	

Elective units

Unit code	Unit title	Prerequisites
Common - Health and Safety		
AURASA2002	Apply safe working practices in an automotive workplace	
Common - Technical		
AURATA2002	Read and interpret engineering drawings	
AURATA2003	Produce drawings from design concepts	
Electrical - Technical - Steering and Suspension		
AURETD3001	Service and repair electronically controlled steering systems	
Electrical - Technical - Electrical and Electronic		
AURETR2006	Carry out soldering of electrical wiring and circuits	
AURETR2010	Fabricate, test and repair wiring harnesses and looms	
AURETR2012	Test and repair basic electrical circuits	
AURETR3017	Overhaul charging system alternators	
AURETR3018	Overhaul starting motors	
AURETR3020	Repair electronic systems	
AURETR3022	Diagnose and repair vehicle dynamic control systems	
AURETR3024	Diagnose and repair electronic compression ignition engine management systems	
AURETR3025	Test, charge and replace batteries	
AURETR3026	Remove, replace and program electrical and electronic units and assemblies	
AURETR3028	Diagnose and repair instruments and warning systems	
AURETR3029	Diagnose and repair charging systems	
AURETR3030	Diagnose and repair starting systems	

Unit code	Unit title	Prerequisites
AURETR3031	Diagnose and repair ignition systems	
AURETR3032	Repair electrical systems	
AURETR3036	Service and repair electronically controlled suspension systems	
AURETR3043	Service and repair electronic body management systems	
AURETR3044	Service and repair electronic drive management systems	
Mechanical - Heavy Vehicle - Technical - Engines		
AURHTE3002	Repair engines and associated engine components (heavy vehicle)	
Mechanical - Heavy Vehicle - Technical - Transmission		
AURHTX3004	Diagnose and repair heavy vehicle clutch systems	
Mechanical - Motorcycle - Technical - Steering and Suspension		
AURJTD3003	Diagnose and repair motorcycle suspension systems	
AURJTD3004	Diagnose and repair motorcycle steering systems	
Mechanical - Motorcycle - Technical - Chassis and Frame		
AURJTY3001	Repair and align motorcycle frames	
Mechanical - Light Vehicle - Technical - Brakes		
AURLTB3003	Diagnose and repair light vehicle hydraulic braking systems	
AURLTB4001	Overhaul braking system components (light)	
Mechanical - Light Vehicle - Technical - Steering and Suspension		
AURLTD3004	Repair steering systems (light vehicle)	
AURLTD3005	Repair suspension systems (light vehicle)	
Mechanical - Light Vehicle - Technical - Engines		
AURLTE3002	Repair engines and associated engine components (light vehicle)	

Unit code	Unit title	Prerequisites
Mechanical - Light Vehicle - Technical – Fuel Systems		
AURLTF3001	Diagnose and repair mechanical fuel injection systems	
Mechanical - Light Vehicle - Technical - Wheels and Tyres		
AURLTJ2001	Select tyres and rims for specific applications (light)	
AURLTJ2002	Remove, inspect, repair and fit tyres and tubes (light)	
AURLTJ2003	Remove, inspect and refit light vehicle wheel assemblies	
Mechanical - Light Vehicle - Technical - Driveline and Final Drives		
AURLTQ3001	Repair final drive assemblies (light vehicle)	
AURLTQ3002	Repair final drive - driveline (light vehicle)	
Mechanical - Light Vehicle - Technical - Transmission		
AURLTX3001	Repair transmissions - manual (light vehicle)	
AURLTX3002	Repair transmissions - automatic (light vehicle)	
AURLTX3003	Diagnose and repair light vehicle clutch systems	
Motorsport – Support and Logistics		
AURMBA2001	Transport a light competition vehicle and support equipment	
Motorsport - Officiating		
AURMDA2001	Develop and update motorsport industry knowledge	
AURMDA3004	Recover a motorsport vehicle	
AURMDA3005	Act as a marshal in a motorsport event	
AURMDA3006	Communicate using flags and signals in a motorsport event	
AURMDA3007	Act as a steward in a motorsport event	
Motorsport		
AURMGA2001	Set up and dismantle temporary work location and	

Unit code	Unit title	Prerequisites
	equipment	
AURMGA4002	Manage personal presentation and development	
Motorsport - Technology (Computing)		
AURMKA4001	Manage motorsport data	AURETR2012 AURMTA3009 MEM30012A
Motorsport - Regulatory or Legal		
AURMLA2001	Comply with motorsport rules and regulations when officiating	
AURMLA3002	Monitor compliance with motorsport rules and regulations	
AURMLA3003	Inspect motorsport vehicles and equipment for compliance	
Motorsport - Management, Leadership and Supervision		
AURMMA4002	Manage the preparation of a competition vehicle	
Motorsport - Health and Safety		
AURMSA2001	Follow motorsport safety and risk management procedures	
AURMSA3002	Implement and monitor safety and risk management in a motorsport environment	
Motorsport - Technical - Steering and Suspension		
AURMTD4001	Test suspension dampers using a dynamometer	MEM30012A
AURMTD4002	Prepare competition vehicle suspension	AURLTD3005 AURTTD2004
Motorsport - Technical -Engines		
AURMTE4001	Test engines using a dynamometer	
Motorsport - Technical - Fuel Systems		
AURMTF4001	Analyse and repair complex performance carburetted fuel	AURTTF2001

Unit code	Unit title	Prerequisites
	systems	AURTTTF3006
AURMTF4002	Analyse and repair performance fuel injection systems	AURETR3023 AURTTTF2001
Motorsport - Technical - Wheels and Tyres		
AURMTJ4001	Select and prepare tyres and wheels for motorsport applications	
Motorsport - Technical - Driveline and Final Drives		
AURMTQ4001	Analyse and repair complex performance driveline systems	AURLTQ3001 AURLTQ3002 AURLTX3001 AURMTA3007
Mechanical Miscellaneous - Technical		
AURTTA4021	Carry out diagnosis of complex system faults	
Mechanical Miscellaneous - Technical - Brakes		
AURTTB3005	Assemble and fit braking systems and components	
Mechanical Miscellaneous - Technical - Cooling Systems		
AURTTC3003	Diagnose and repair cooling systems	
Mechanical Miscellaneous - Technical - Steering and Suspension		
AURTTD2002	Inspect and service steering systems	
AURTTD2004	Inspect and service suspension systems	
AURTTD4005	Overhaul steering system components	
Mechanical Miscellaneous - Technical - Engines		
AURTTE4005	Overhaul engines and associated engine components	
Mechanical Miscellaneous - Technical - Fuel Systems		
AURTTTF2001	Service petrol fuel systems	
AURTTTF3005	Inspect and repair engine forced induction systems	

Unit code	Unit title	Prerequisites
AURTTTF4007	Overhaul petrol fuel system components	
Mechanical Miscellaneous - Technical - Wheels and Tyres		
AURTTJ2001	Balance wheels and tyres	
Mechanical Miscellaneous - Technical - Tools and Equipment		
AURTTK2001	Use and maintain measuring equipment in an automotive workplace	
Mechanical Miscellaneous - Technical - Manufacture		
AURTTM3003	Apply metal to rebuild engine components	
AURTTM3004	Assemble engine blocks and sub-assemblies	
AURTTM3008	Dismantle and evaluate engine blocks and sub-assemblies	
AURTTM3010	Heat treat, straighten and reclaim engine components	
AURTTM3011	Recondition engine cylinder heads	
Mechanical Miscellaneous - Technical - Driveline and Final Drives		
AURTTQ2001	Service final drive assemblies	
AURTTQ4004	Overhaul final drive assemblies	
Mechanical Miscellaneous - Technical - Fabrication		
AURTTTS2001	Fabricate exhaust system and components	
Mechanical Miscellaneous - Technical - Transmission		
AURTTX2003	Inspect and service transmissions (automatic)	
AURTTX4007	Overhaul clutch assemblies	
AURTTX4008	Overhaul transmissions (manual)	
AURTTX4009	Overhaul transmissions (automatic)	
Vehicle Body - Technical		
AURVTA3002	Remove and replace supplementary restraint systems	

Unit code	Unit title	Prerequisites
Vehicle Body - Technical - Welding, Grinding, Machining and Soldering		
AURVTW2001	Carry out manual metal arc welding procedures	
AURVTW2002	Carry out brazing procedures	
AURVTW2003	Carry out gas metal arc welding procedures	
AURVTW2004	Carry out gas tungsten arc welding procedures	
AURVTW2005	Carry out spot welding procedures	
AURVTW3006	Carry out thermoplastic welding procedures	
AURVTW2008	Carry out oxy acetylene welding, thermal cutting and thermal heating procedures	
Imported Units		
MEM07005C	Perform general machining	MEM09002B MEM12023A MEM18001C
MEM09002B	Interpret technical drawing	
MEM12023A	Perform engineering measurements	
MEM18001C	Use hand tools	
MEM18002B	Use power tools/hand held operations	
MEM30012A	Apply mathematical techniques in a manufacturing, engineering or related environment	

Custom Content Section

Not applicable.