Australian Government

Department of Education, Employment and Workplace Relations

AUR40405 Certificate IV in Automotive Performance Enhancement

Release: 2

INDUSTRY SKILLS COUNCILS

Creating Australia's Future

AUR40405 Certificate IV in Automotive Performance Enhancement

Modification History

Not Applicable

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Description

This qualification covers the skills and knowledge required to analyse and repair complex performance driveline systems, and prepare and test motorsport vehicles.

Job roles/employment outcomes
The Certificate IV in Automotive Performance Enhancement is intended to provide advanced training for individuals who are performing mechanical or technical roles in the automotive or motorsport industry.

Employment outcomes targeted by this qualification include:

- master technician
- performance vehicle mechanic.

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 to those who have completed AUR30405 Certificate III in Automotive Mechanical Technology, AUR30905 Certificate III in Motorsport or other relevant qualifications.

Pathways from the qualification
Further training pathways from this qualification include AUR50205 Diploma of Automotive Technology, AUR50305 Diploma of Motorsport 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

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Employability Skills Summary

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY	
The following table contains a summary of the Employability Skills as identified by the Automotive retail, 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	• Understanding input from specialist personnel and technical representatives • Providing guidance to others and clearly describing faults, problems and repair requirements • Negotiating with other team members or supervisors regarding timing and progress of work activities and access to equipment • Understanding and interpreting regulations, procedures, instructions and technical manuals • Interpreting wiring diagrams and system schematics, and reading drawings relating to technical activities • Using computers to obtain technical data and complete documentation • Articulating complex ideas clearly • Interpreting a range of complex and technical documents • Analysing and evaluating records, reports and reference materials • Understanding relevant definitions, terminology, symbols and language
Teamwork	• Performing tasks as an individual while being responsive to supervisors and others • Working effectively with others who may be of different ages, gender, race, religion and political persuasion • Assisting other team members with tasks and providing advice on work processes and troubleshooting • Seeking expert advice where appropriate • Supporting team members in developing skills and knowledge • Working within own role to support team activities • Identifying and utilising the strengths of other team members
Problem solving	• Identifying problems in a timely manner and developing practical solutions to problems/faults not fully covered by technical data • Responding to emergencies or accidents in accordance with regulatory and organisational requirements • Using mathematical techniques to relate diagnostic/test results

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EMPLOYABILITY SKILLS QUALIFICATION SUMMARY	
	to system or component performance and to convert values between systems of measurement • Finding, analysing and interpreting data which may be incomplete or have discrepancies • Applying a range of problem-solving strategies • Seeking information from various sources to determine the cause of the problem
Initiative and enterprise	• Adapting to new situations that arise as a consequence of regulatory changes, revised technical data, practices and procedures • Varying work practices and behaviour as a result of performance feedback from peers and supervisors • Adapting competencies to the performance of a wide range of repair tasks • Contributing to a process of continuous improvement and a willingness to support and participate in the effective introduction of new work practices • Identifying learning opportunities to improve work practices • Evaluating tasks to improve efficiency
Planning and organising	• Clarifying task objectives and required outcomes through discussion with supervisors and other team members • Collecting, analysing and organising information relating to assigned repair tasks and confirming the purpose and required work outcomes • Identifying and organising equipment and material/resource requirements • Planning for contingencies
Self-management	• Accepting responsibility for managing individual workload to meet target completion times or fit in with team milestones • Evaluating own performance and identifying areas for improvement • Managing time to independently complete tasks • Planning and reviewing own work • Using judgement and discretion with confidential information
Learning	• Taking advantage of learning opportunities that arise internally and externally • Adapting competencies to accommodate new ideas and techniques • Using feedback from supervisors and peers to identify ways in which competence can be improved • Participating in professional networks and associations to obtain and maintain knowledge and skills

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EMPLOYABILITY SKILLS QUALIFICATION SUMMARY	
	• Seeking out and learning new ideas, skills and techniques
Technology	• 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 • Using computers and microfiche to obtain technical and repair data • Using business technology to collect, analyse and provide information

Packaging Rules

Packaging Rules
To be awarded the Certificate IV in Automotive Performance Enhancement, competency must be achieved in **ten** (**10**) units of competency, **additional to the requirements for Certificate III in Mechanical Technology or Certificate III in Motorsport**.

Select **ten** (**10**) elective units of competency, as specified below:

- a minimum of **six** (**6**) elective units of competency from Group A
- a maximum of **four** (**4**) elective units of competency from Group B, drawn in any combination from:
  - units not already chosen from Group A
  - Group B units listed, with a maximum of two (2) units from the General Mechanical and/or Electrical and Electronic groups
  - up to two (2) relevant units available in this Training Package, other endorsed Training Packages and accredited courses, where those units are aligned to Certificate III, IV and Diploma qualifications

Note that a maximum of **two** (**2**) elective units may be selected from units aligned to Diploma qualifications.

Where prerequisite units are identified they must be counted in the total number of units required for completion of the qualification.

Elective units of competency

Group A
Complete a minimum of **six** (**6**) units of competency from the following list

AURM441293B	Analyse and repair complex performance driveline systems

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AURM441293B	Analyse and repair complex performance driveline systems
AURM441394A	Analyse and repair complex performance carburetted fuel systems
AURM441395A	Analyse and repair performance fuel injection systems
AURM441438B	Manage motorsport data acquisition
AURM441538B	Manage personal presentation and development
AURM441638B	Manage the preparation of a competition vehicle
AURM441749B	Prepare competition vehicle suspension
AURM441868B	Select and prepare tyres and wheels for motorsport applications
AURM441976B	Test engines using a dynamometer
AURM442076B	Test suspension dampers using a dynamometer
AURM542103A	Apply aerodynamic and vehicle dynamic principles and effects to competition vehicles
AURM542216A	Determine material suitability for competition vehicle component construction
AURM542338A	Manage motorsport operations
AURM542438A	Manage motorsport team development
AURM542538A	Manage motorsport team media liaison
AURM542638A	Manage motorsport team promotional partnerships and marketing
AURM542738A	Manage team pit lane/service area operations
AURM542849A	Prepare and implement race strategies

Group B - Other elective units

- The balance of units, to a maximum of **four** (**4**), may be drawn from any combination of:
  - units not already chosen from Group A
  - Group B units listed below

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- a maximum of **two** (**2**) Group B units may be selected from the General Mechanical and/or Electrical and Electronic groups, or other relevant units available in this Training Package, other endorsed Training Packages and accredited courses, where those units are aligned to Certificate III, IV and Diploma qualifications.

Common	
AURT471782A	Plan and manage compliance with environmental regulations in the mechanical repair industry
AURC561614A	Contribute to business improvement
BSBOHS407A	Monitor a safe workplace
BSBRES401A	Analyse and present research information
MSAENV472B	Implement and monitor environmentally sustainable work practices

Brakes	
AURT410145AA	Overhaul braking system components (light)
AURT570393A	Analyse and evaluate light vehicle braking system faults

Electrical and Electronic	
AURT575093A	Analyse and evaluate electrical and electronic faults in stability/ steering/suspension systems
AURT575193A	Analyse and evaluate electrical and electronic faults in electric over hydraulic systems
AURT575293A	Analyse and evaluate electrical and electronic faults in engine management systems
AURT575393A	Analyse and evaluate electrical and electronic faults in transmission/ driveline systems
AURT575493A	Analyse and evaluate electrical and electronic faults in braking systems
AURT575593A	Analyse and evaluate electrical and electronic faults in safety systems

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Electrical and Electronic	
AURT575693A	Analyse and evaluate electrical and electronic faults in monitoring/ protection systems
AURT576520A	Develop and apply electrical systems modification
AURT576620A	Develop and apply electronic systems modification

Engines/systems and transmissions	
AURT401145A	Overhaul engines and associated engine components
AURT403145B	Overhaul petrol fuel system components
AURT406145A	Overhaul clutch assemblies
AURT406645A	Overhaul transmissions (manual)
AURT407145A	Overhaul transmissions (automatic)
AURT412645A	Overhaul final drive assemblies
AURT570193A	Analyse and evaluate light vehicle driveline system faults
AURT570293A	Analyse and evaluate light vehicle engine and fuel system faults

General mechanical	
AURT466208A	Carry out diagnosis of complex system faults
AURT477093A	Analyse and evaluate gas fuel system faults
AURT574020A	Develop and apply mechanical systems modification
AURT574120A	Develop and apply hydraulic systems modification
AURT577120A	Develop and apply gas fuel systems modification
AURT577520A	Prepare technical reports
AURT577620A	Develop and document specifications and procedures
AURT577727B	Estimate and calculate costs to repair, maintain or modify a vehicle

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General mechanical	
MEM30012A	Apply mathematical techniques in a manufacturing, engineering or related environment

Steering and suspension	
AURT415145A	Overhaul steering system components
AURT570093A	Analyse and evaluate light vehicle steering and suspension system faults

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