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Department of Education, Employment and Workplace Relations

AUM12 Automotive Manufacturing

Release: 1.0

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AUM12 Automotive Manufacturing

Modification History

AUM12 Version 1 Modification History

Version	Release Date	Comments						
1	June 2012	<p>Changes between this training package (AUM12) and previously endorsed training package (AUM08):</p> <p>Qualifications</p> <ul style="list-style-type: none">• 1 new AUM qualification<ul style="list-style-type: none">• AUM40112• 6 revised AUM qualifications<ul style="list-style-type: none">• AUM10112 replaces AUM10108• AUM20112 replaces AUM20108• AUM20212 replaces AUM25108• AUM30112 replaces AUM30108• AUM30212 replaces AUM35108• AUM50112 replaces AUM50108 <p>Units of Competency</p> <ul style="list-style-type: none">• 1 new AUM unit<ul style="list-style-type: none">• AUMGLM3001 Comply with heavy vehicle modification standards• 102 AUM unit codes updated to meet policy requirements• 10 AUM units removed• 22 new imported units• 8 imported units removed• 2 imported units updated/replaced with new imported units• Adoption of new numbering system for the AUM Training Package• Update to template for all units of competency• Recoding of all units of competency to conform with the Training Package Development Handbook <p>The following units of competency have been removed from this Training Package:</p> <table><tr><td>AUM8031B</td><td>Receive and store parts</td></tr><tr><td>AUM8033B</td><td>Select and dispatch parts</td></tr><tr><td>AUM8054B</td><td>Perform submerged arc welding operations (SAW)</td></tr></table>	AUM8031B	Receive and store parts	AUM8033B	Select and dispatch parts	AUM8054B	Perform submerged arc welding operations (SAW)
AUM8031B	Receive and store parts							
AUM8033B	Select and dispatch parts							
AUM8054B	Perform submerged arc welding operations (SAW)							

		AUM8055B	Perform oxyacetylene welding operations (OAW)
		AUM8073B	Control oven baking cycle
		AUM8093B	Test, service and replace battery
		AUM8131B	Install and commission air conditioning system kit
		AUM8132B	Install and commission refrigeration system kit
		AUM8133B	Remove and replace air conditioning system
		AUM8134B	Remove and replace refrigeration system

Revised qualifications :

- AUM10112 Certificate I in Automotive Manufacturing
- AUM20112 Certificate II in Automotive Manufacturing Production
- Passenger Motor Vehicle
- AUM20212 Certificate II in Automotive Manufacturing Production
- Bus, Truck and Trailer
- AUM30112 Certificate III in Automotive Manufacturing Technical
Operations - Passenger Motor Vehicle
- AUM30212 Certificate III in Automotive Manufacturing Technical
Operations Bus - Truck and Trailer
- AUM50112 Diploma of Automotive Manufacturing

New qualification:

- AUM40112 Certificate IV in Automotive Manufacturing

See Modification History and Mapping of Units for further details

Imprint

AUM12 Automotive Manufacturing

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Disclaimer

This work is the result of wide consultations with Australian industry participants. It is a collaborative view and may omit factors which could be pertinent in particular cases.

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Preliminary Information

Important Note to Users

Training Packages are not static documents; they are amended periodically to reflect the latest industry practices and are version controlled. It is essential that the latest version is always used.

Check the version number before commencing training or assessment

This Training Package is Version One – check whether this is the latest version by going to the National Training Information Service (www.ntis.gov.au) and locating information about the Training Package. Alternatively, contact **Auto Skills Australia** to confirm the latest version number.

Explanation of version number conventions

The primary release Training Package is Version 1. When changes are made to a Training Package, sometimes the version number is changed and sometimes it is not, depending on the extent of the change. When a Training Package is reviewed it is considered to be a new Training Package for the purposes of version control, and is Version 1. Do not confuse the version number with the Training Package's national code (which remains the same during its period of endorsement).

Explanation of the review date

The review date (shown on the title page and in the footer of each page) indicates when the Training Package is expected to be reviewed in the light of changes such as changing technologies and circumstances. The review date is not an expiry date. Endorsed Training Packages and their components remain current until they are reviewed or replaced.

Version modification history

The version details of this endorsed Training Package are in the table below. The latest information is at the top of the table.

Version	Release Date	Comments
Version 1	June 2012	Preliminary release - total review of AUM08

Summary of AQF qualifications in AUM12 Automotive Manufacturing Training Package Version 1

Qualification Code	National Qualification Title
AQF I	
AUM10112	Certificate I in Automotive Manufacturing
AQF II	
AUM20112	Certificate II in Automotive Manufacturing Production – Passenger Motor Vehicle
AUM20212	Certificate II in Automotive Manufacturing Production – Bus, Truck and Trailer
AQF III	
AUM30112	Certificate III in Automotive Manufacturing Technical Operations – Passenger Motor Vehicle
AUM30212	Certificate III in Automotive Manufacturing Technical Operations – Bus, Truck and Trailer
AQF IV	
AUM40112	Certificate IV in Automotive Manufacturing
Diploma	
AUM50112	Diploma of Automotive Manufacturing

Summary of Units of Competency in AUM12 Automotive Manufacturing Training Package and their Pre-Requisite Requirements

Unit code	Unit title	Pre-requisite
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Unit code	Unit title	Pre-requisite
A: Common		
ABA: Common - Support and Logistics		
AUMABA300 1	Perform forklift driving and lifting operations	None
AUMABA300 2	Operate load shifting equipment	None
ABM: Common - Support and Logistics - Manufacture		
AUMABM400 1	Control stock	None
AFA: Common - Foundation and Employability Skills		
AUMAFA100 1	Manage personal career goals	None
AUMAFA200 2	Maintain effective workplace relationships	None
AKM: Common - Technology (Computing) - Manufacture		
AUMAKM400 1	Program and monitor computerised equipment	None
AUMAKM500 2	Produce computer-aided drawings	None
AMA: Common - Teamwork, Supervision and Management		
AUMAMA200 1	Manage personal workplace	None
AUMAMA200 2	Work effectively with others in teams	None
AUMAMA400 3	Prepare new product designs	None
AUMAMA500 4	Coordinate project activities	None
AMM: Common - Teamwork, Supervision and Management - Manufacture		

Unit code	Unit title	Pre-requisite
AUMAMM3001	Influence and lead work groups in an automotive manufacturing environment	None
ANA: Common - Loss Assessment or Repair Quoting		
AUMANA3001	Prepare and document quotation	None
AQA: Common - Quality		
AUMAQA4001	Apply quality assurance techniques	None
ASA: Common - Health and Safety		
AUMASA2001	Monitor and maintain a safe workplace and environment	None
ASM: Common - Health and Safety - Manufacture		
AUMASM3001	Maintain a safe automotive manufacturing work environment	None
ATA: Common - Technical		
AUMATA2001	Develop and produce documentation and procedures	None
AUMATA3002	Conduct final inspections and functional tests	None
AUMATA3003	Rectify faults in vehicle metal components	None
AUMATA3004	Rectify mechanical faults on assembled vehicles	None
AUMATA3005	Rectify assembly faults in assembled vehicles	None
AUMATA4006	Provide technical advice	None
AUMATA4007	Conduct simulated or road performance test	None
AUMATA500	Produce drawings manually	None

Unit code	Unit title	Pre-requisite
8		
ATE: Common - Technical - Engines		
AUMATE300 1	Rework production engines	None
ATK: Common - Technical - Tools and Equipment		
AUMATK100 1	Select and use tools and equipment in an automotive manufacturing environment	None
AUMATK200 2	Prepare, use and operate equipment, tools and machinery	None
AUMATK300 3	Monitor and maintain equipment, tools and machinery	None
AUMATK400 4	Use measuring equipment	None
AUMATK400 5	Calibrate measuring equipment in automotive development	None
AUMATK400 6	Test plant, tooling, equipment, product or systems	None
AUMATK400 7	Install plant, equipment or systems	None
AUMATK400 8	Maintain plant, tooling, equipment or systems	None
AUMATK400 9	Repair plant, tooling, equipment or systems	None
AUMATK401 0	Manufacture or modify plant, tooling, equipment or systems	None
AUMATK401 1	Interpret manuals, drawings and circuits for plant, tooling, equipment or systems	None
ATN: Common - Technical - Body		
AUMATN300 1	Conduct structural rectification of vehicle bodies	None

Unit code	Unit title	Pre-requisite
ATP: Common - Technical - Paint		
AUMATP3001	Rectify paintwork	None
AUMATP3002	Control paint line production processes	None
ATR: Common - Technical - Electrical and Electronic		
AUMATR3001	Rectify electrical faults on assembled vehicles	None
AUMATR4002	Use sensors to acquire motor vehicle data for development purposes	None
ATS: Common - Technical - Fabrication		
AUMATS2001	Stamp and press parts	None
ATW: Common - Technical - Welding, Grinding, Machining and Soldering		
AUMATW3001	Test welds ultrasonically	None
AUMATW4002	Conduct welding inspection	None
F: Manufacturing – Passenger Vehicle		
FBK: Passenger Vehicle - Support and Logistics -Tools and Equipment		
AUMFBK2001	Receive and dispatch materials, equipment and tools	None
FBM: Passenger Vehicle - Support and Logistics - Manufacture		
AUMFBM2001	Prepare and process materials and components	None
FMM: Passenger Vehicle - Teamwork, Supervision and Management - Manufacture		
AUMFMM3001	Reduce cycle time in work processes	None
AUMFMM3002	Reduce waste in work processes	None
AUMFMM300	Plan and organise production	None

Unit code	Unit title	Pre-requisite
3		
FQM: Passenger Vehicle - Quality - Manufacture		
AUMFQM200 1	Monitor and maintain continuous improvement of systems and processes	None
AUMFQM300 2	Sustain quality standards	None
AUMFQM300 3	Apply visual factory principles and practices to an automotive manufacturing environment	None
FTA: Passenger Vehicle - Technical		
AUMFTA3001	Document designs	None
AUMFTA3002	Conduct die coating	None
AUMFTA3003	Conduct tool setting	None
AUMFTA3004	Monitor and maintain metals treatment plant operations	None
AUMFTA4005	Analyse a test vehicle for research purposes	None
AUMFTA5006	Produce research reports	None
AUMFTA5007	Seek, evaluate, organise and prepare information	None
FTE: Passenger Vehicle - Technical - Engines		
AUMFTE3001	Conduct engine hot test	None
FTK: Passenger Vehicle - Technical - Tools and Equipment		
AUMFTK5001	Establish a test or trial for components of plant, tooling, equipment or systems	None
FTM: Passenger Vehicle - Technical - Manufacture		
AUMFTM300 1	Undertake preliminary fault finding and machine reset	None
AUMFTM500 2	Create new product designs	None
AUMFTM500	Develop conceptual models and prototypes	None

Unit code	Unit title	Pre-requisite
3		
FTQ: Passenger Vehicle - Technical - Driveline and Drivetrain (Fuel Drives)		
AUMFTQ3001	Install engine and drive train	None
G: Manufacturing – Bus, Truck and Trailer		
GCA: Bus, Truck and Trailer - Sales		
AUMGCA2001	Provide customer service	None
GLM: Bus, Truck and Trailer - Regulatory or Legal - Manufacture		
AUMGLM3001	Comply with heavy vehicle modification standards	None
GMA: Bus, Truck and Trailer - Teamwork, Supervision and Management		
AUMGMA3001	Participate in workplace productivity	None
GMM: Bus, Truck and Trailer - Teamwork, Supervision and Management - Manufacture		
AUMGMM3001	Contribute to workplace relationships and processes	None
GQA: Bus, Truck and Trailer - Quality		
AUMGQA3001	Inspect work and apply organisation technical quality standards	None
GTA: Bus, Truck and Trailer - Technical		
AUMGTA2001	Read and interpret working drawings and work orders	None
AUMGTA3002	Service after assembly	None
GTB: Bus, Truck and Trailer - Technical - Brakes		
AUMGTB3001	Assemble and install braking system kit	None
GTD: Bus, Truck and Trailer -Technical - Steering and Suspension		

Unit code	Unit title	Pre-requisite
AUMGTD300 1	Perform wheel alignment operations	None
GTG: Bus, Truck and Trailer - Technical - Glazing		
AUMGTG300 1	Install fixed and moveable glass components	None
GTM: Bus, Truck and Trailer - Technical - Manufacture		
AUMGTM200 1	Assemble components	None
AUMGTM200 4	Install and fit out components	
AUMGTM300 2	Assemble frame and axle	None
AUMGTM300 3	Install or replace mechanical units and assemblies	None
AUMGTM300 5	Read and interpret engineering drawings and job specifications	None
AUMGTM300 6	Assemble and install hydraulic system kit	None
AUMGTM300 7	Assemble and install pneumatic system kit	None
AUMGTM300 8	Bond and repair components using fibreglass reinforced plastic techniques	None
GTN: Bus, Truck and Trailer - Technical - Body		
AUMGTN300 1	Rectify and replace vehicle body panels and ancillary fittings	None
GTP: Bus, Truck and Trailer - Technical - Paint		
AUMGTP3001	Finish surfaces for painting	None
AUMGTP3002	Rework paint faults	None
GTR: Bus, Truck and Trailer - Technical - Electrical and Electronic		

Unit code	Unit title	Pre-requisite
AUMGTR3001	Install or replace electrical and electronic units and assemblies	None
AUMGTR3002	Manufacture or modify wiring harnesses	None
AUMGTR3003	Perform minor modifications and repairs to electrical circuits and systems	None
GTS: Bus, Truck and Trailer - Technical - Fabrication		
AUMGTS3001	Prepare materials for fabrication using jigs and fixtures	None
AUMGTS3002	Prepare materials for fabrication using manual processes	None
AUMGTS3003	Fabricate plugs	None
AUMGTS3004	Fabricate parts for sub-assemblies	None
GTT: Bus, Truck and Trailer - Technical - Trimming and Upholstery		
AUMGTT2001	Apply trim to components	None
GTW: Bus, Truck and Trailer - Technical - Welding, Grinding, Machining and Soldering		
AUMGTW3001	Conduct basic welding, thermal cutting, heating and gouging operations	None
AUMGTW3002	Conduct mechanical cutting operations	None
AUMGTW3003	Perform manual metal arc welding operations	None
AUMGTW3004	Perform gas tungsten arc welding operations	None
AUMGTW3005	Perform gas metal arc welding operations	None
AUMGTW3006	Machine parts	None
GTY: Bus, Truck and Trailer - Technical - Chassis and Frame		
AUMGTY300	Paint chassis or panels	None

Unit code	Unit title	Pre-requisite
1		
AUMGTY300 2	Mount and install assembled component to chassis or frame	None
AUMGTY300 3	Modify or rectify chassis and frame and associated components	None

Imported Units of Competency in AUM12 Automotive Manufacturing Training Package

Unit code	Unit title	Origin
AURC172003A	Identify environmental regulations and best practice in workplace or business	AUR05
AURC251677A	Use numbers in the workplace	AUR05
AURC270789A	Communicate effectively in the workplace	AUR05
AURC272003A	Apply environmental regulations and best practice in a workplace or business	AUR05
AURC472082A	Plan and manage compliance with environmental regulations in a workplace or business	AUR05
AURE224008A	Carry out soldering of electrical wiring/circuits	AUR05
AURM441976B	Test engines using a dynamometer	AUR05
AURT211170A	Inspect and service air braking systems	AUR05
AURT216130A	Inspect suspension systems	AUR05
AURT216170A	Inspect and service suspension systems	AUR05
AURT311166A	Repair air braking systems	AUR05
AURT411145A	Overhaul air braking systems/components	AUR05
AURT466208A	Carry out diagnosis of complex system faults	AUR05
AURT570093A	Analyse and evaluate light vehicle steering and suspension system faults	AUR05

Unit code	Unit title	Origin
AURT570193A	Analyse and evaluate light vehicle driveline system faults	AUR05
AURT570293A	Analyse and evaluate light vehicle engine and fuel system faults	AUR05
AURT570393A	Analyse and evaluate light vehicle braking system faults	AUR05
AURT575093A	Analyse and evaluate electrical and electronic faults in stability/steering/suspension systems	AUR05
AURT575193A	Analyse and evaluate electrical and electronic faults in electric over hydraulic systems	AUR05
AURT575293A	Analyse and evaluate electrical and electronic faults in engine management systems	AUR05
AURT575393A	Analyse and evaluate electrical and electronic faults in transmission/driveline systems	AUR05
AURT575493A	Analyse and evaluate electrical and electronic faults in braking systems	AUR05
AURT575593A	Analyse and evaluate electrical and electronic faults in safety systems	AUR05
AURT575693A	Analyse and evaluate electrical and electronic faults in monitoring/protection systems	AUR05
AURT575893A	Analyse and evaluate electrical and electronic faults in convenience and entertainment systems	AUR05
AURT575993A	Analyse and evaluate electrical and electronic faults in theft deterrent systems	AUR05
AURT576093A	Analyse and evaluate electrical and electronic faults in electric and hybrid vehicle systems	AUR05
AURT576193A	Analyse and evaluate electrical and electronic faults in climate control systems	AUR05
AURT576520A	Develop and apply electrical systems modification	AUR05
AURT576620A	Develop and apply electronic systems modification	AUR05
AURT577120A	Develop and apply gas fuel systems modification	AUR05
AURT577520A	Prepare technical reports	AUR05

Unit code	Unit title	Origin
AURTH316166A	Repair suspension systems (heavy vehicle)	AUR05
BSBCM101A	Apply basic communication skills	BSB07
BSBCM311B	Maintain workplace safety	BSB07
BSBDIV301A	Work effectively with diversity	BSB07
BSBINM301A	Organise workplace information	BSB07
BSBINM302A	Utilise a knowledge management system	BSB07
BSBINN301A	Promote innovation in a team environment	BSB07
BSBLED401A	Develop teams and individuals	BSB07
BSBOHS501B	Participate in the coordination and maintenance of a systematic approach to managing OHS	BSB07
BSBPMG403A	Apply cost management techniques	BSB07
BSBPMG501A	Manage application of project integrative processes	BSB07
BSBPMG504A	Manage project costs	BSB07
BSBPMG508A	Manage project risk	BSB07
BSBRKG304B	Maintain business records	BSB07
BSBRSK401A	Identify risk and apply risk management processes	BSB07
BSBWOR502B	Ensure team effectiveness	BSB07
ICAICT103A	Use, communicate and search securely on the internet	ICA11
MEM13014A	Apply principles of occupational health and safety in the work environment	MEM05
MSACMC210A	Manage the impact of change on own work	MSA07
MSACMC411A	Lead a competitive manufacturing team	MSA07
MSACMS200A	Apply competitive manufacturing practices	MSA07
MSACMS201A	Sustain process improvements	MSA07
MSACMS400A	Implement a competitive manufacturing system	MSA07

Unit code	Unit title	Origin
MSACMS401A	Ensure process improvements are sustained	MSA07
MSACMT220A	Apply quick changeover procedures	MSA07
MSACMT221A	Apply Just in Time (JIT) procedures	MSA07
MSACMT230A	Apply cost factors to work practices	MSA07
MSACMT231A	Interpret product costs in terms of customer requirements	MSA07
MSACMT240A	Apply 5S procedures in a manufacturing environment	MSA07
MSACMT250A	Monitor process capability	MSA07
MSACMT251A	Apply quality standards	MSA07
MSACMT260A	Use planning software systems in manufacturing	MSA07
MSACMT261A	Use SCADA systems in manufacturing	MSA07
MSACMT280A	Undertake root cause analysis	MSA07
MSACMT421A	Facilitate a Just In Time (JIT) system	MSA07
MSACMT430A	Improve cost factors in work practices	MSA07
MSACMT432A	Analyse manual handling processes	MSA07
MSACMT440A	Lead 5S in a manufacturing environment	MSA07
MSACMT441A	Facilitate continuous improvement in manufacturing	MSA07
MSACMT451A	Mistake proof a production process	MSA07
MSACMT452A	Apply statistics to processes in manufacturing	MSA07
MSACMT453A	Use six sigma techniques	MSA07
MSACMT460A	Facilitate the use of planning software systems in manufacturing	MSA07
MSACMT482A	Assist in implementing a proactive maintenance strategy	MSA07
MSAENV272B	Participate in environmentally sustainable work practices	MSA07
MSAENV472B	Implement and monitor environmentally sustainable work practices	MSA07

Unit code	Unit title	Origin
MSAENV672B	Develop workplace policy and procedures for environmental sustainability	MSA07
MSAPMSUP390A	Use structured problem solving tools	MSA07
MSL924002A	Use laboratory application software	MSL09
MSL973001A	Perform basic tests	MSL09
MSL973007A	Perform microscopic examination	MSL09
MSS404050A	Undertake process capability improvements	MSS11
MSS404052A	Apply statistics to operational processes	MSS11
TLIA3017A	Identify products and store to specifications	TLI10
TLIA3023A	Coordinate stocktakes	TLI10
TLIA4028A	Assess and monitor optimum stock levels	TLI10
TLID3036A	Lift and move load using a mobile crane	TLI10

Summary Mapping of AUM12 Automotive Manufacturing Training Package to AUM08 Automotive Manufacturing Training Package

E= equivalent N= not equivalent

Code	Qualification Title	Relationship	E/N	Comment in relationship to Training Package AUM08v1.1
AUM10112	Certificate I in Automotive Manufacturing	Replaces AUM10108 ISC update equivalent	E	Revised qualification Qualification and unit code recoded to meet policy requirements
AUM20112	Certificate II in Automotive Manufacturing Production – Passenger Motor Vehicle	Replaces AUM20108 Revised qualification requirements	E	Revised qualification Qualification and unit codes recoded to meet policy requirements AUM units removed New AUM units added New imported units added
AUM20212	Certificate II in Automotive	Replaces AUM25108 Revised qualification	E	Revised qualification Qualification and unit codes

Code	Qualification Title	Relationship	E/N	Comment in relationship to Training Package AUM08v1.1
	Manufacturing Production – Bus, Truck and Trailer	requirements		recoded to meet policy requirements Packaging rules have changed AUM units removed New AUM units added New imported units added Imported units removed
AUM30112	Certificate III in Automotive Manufacturing Technical Operations – Passenger Motor Vehicle	Replaces AUM30108 Revised qualification requirements	E	Revised qualification Qualification and unit codes recoded to meet policy requirements Packaging rules have changed
AUM30212	Certificate III in Automotive Manufacturing Technical Operations – Bus, Truck and Trailer	Replaces AUM35108 Revised qualification requirements	E	Revised qualification Qualification and unit codes recoded to meet policy requirements Packaging rules have changed AUM units removed New AUM units added New imported units added Imported units removed
AUM40112	Certificate IV in Automotive Manufacturing	Replaces AUM40108 and AUM45108 Revised qualification requirements	N	New qualification Packaging rules have changed Unit codes have been recoded to meet policy requirements
AUM50112	Diploma of Automotive Manufacturing	Replaces AUM50108 ISC update equivalent	E	Revised qualification Qualification and unit code recoded to meet policy requirements

Mapping to units of competency – AUM12v1

E= equivalent

N= not equivalent

AUM08 v1.1 Unit code	AUM08 v1.1 Unit title	AUM12 v1 Unit code	AUM12 v1 Unit title	Comment in relation to AUM08 v1.1	E/N
		AUMGLM3001	Comply with heavy vehicle modification standards	New unit	N/A
AUM1001A	Manage personal career goals	AUMAFA1001	Manage personal career goals	Unit code updated to meet policy requirements	E
AUM1002A	Select and use tools and equipment in an automotive manufacturing environment	AUMATK1001	Select and use tools and equipment in an automotive manufacturing environment	Unit code updated to meet policy requirements	E
AUM2001B	Monitor and maintain a safe workplace and environment	AUMASA2001	Monitor and maintain a safe workplace and environment	Unit code updated to meet policy requirements	E
AUM2002B	Receive and dispatch materials, equipment and tools	AUMFBK2001	Receive and dispatch materials, equipment and tools	Unit code updated to meet policy requirements	E
AUM2003B	Prepare and process materials and components	AUMFBM2001	Prepare and process materials and components	Unit code updated to meet policy requirements	E
AUM2004B	Prepare and use/operate equipment, tools and/or machinery	AUMATK2002	Prepare, use and operate equipment, tools and machinery	Unit code and title updated to meet policy requirements	E
AUM2005B	Monitor and maintain continuous improvement of systems and processes	AUMFQM2001	Monitor and maintain continuous improvement of systems and processes	Unit code updated to meet policy requirements	E
AUM2006B	Monitor and	AUMATK3003	Monitor and	Unit code updated to	E

AUM08 v1.1 Unit code	AUM08 v1.1 Unit title	AUM12 v1 Unit code	AUM12 v1 Unit title	Comment in relation to AUM08 v1.1	E/N
	maintain equipment, tools and machinery		maintain equipment, tools and machinery	meet policy requirements Recoded at level 3	
AUM2007B	Manage personal workplace	AUMAMA200 1	Manage personal workplace	Unit code updated to meet policy requirements	E
AUM2008B	Maintain effective workplace relationships	AUMAF2002	Maintain effective workplace relationships	Unit code updated to meet policy requirements	E
AUM2009B	Work effectively with others in teams	AUMAMA200 2	Work effectively with others in teams	Unit code updated to meet policy requirements	E
AUM2901B	Develop and produce documentation and procedures	AUMATA2001	Develop and produce documentation and procedures	Unit code updated to meet policy requirements	E
AUM3003B	Document designs	AUMFTA3001	Document designs	Unit code updated to meet policy requirements	E
AUM3020A	Influence and lead work groups in an automotive manufacturing environment	AUMAMM300 1	Influence and lead work groups in an automotive manufacturing environment	Unit code updated to meet policy requirements	E
AUM3021A	Sustain quality standards	AUMFQM3002	Sustain quality standards	Unit code updated to meet policy requirements	E
AUM3022A	Reduce cycle time in work processes	AUMFMM300 1	Reduce cycle time in work processes	Unit code updated to meet policy requirements	E
AUM3023A	Reduce waste in work processes	AUMFMM300 2	Reduce waste in work processes	Unit code updated to meet policy requirements	E

AUM08 v1.1 Unit code	AUM08 v1.1 Unit title	AUM12 v1 Unit code	AUM12 v1 Unit title	Comment in relation to AUM08 v1.1	E/N
AUM3024A	Undertake preliminary fault finding and machine reset	AUMFTM3001	Undertake preliminary fault finding and machine reset	Unit code updated to meet policy requirements	E
AUM3025A	Apply visual factory principles and practices to an automotive manufacturing environment	AUMFQM3003	Apply visual factory principles and practices to an automotive manufacturing environment	Unit code updated to meet policy requirements	E
AUM3026A	Maintain a safe automotive manufacturing work environment	AUMASM3001	Maintain a safe automotive manufacturing work environment	Unit code updated to meet policy requirements	E
AUM3401B	Plan and organise production	AUMFMM3003	Plan and organise production	Unit code updated to meet policy requirements	E
AUM4001A	Analyse a test vehicle for research purposes	AUMFTA4005	Analyse a test vehicle for research purposes	Unit code updated to meet policy requirements	E
AUM4002A	Provide technical advice	AUMATA4006	Provide technical advice	Unit code updated to meet policy requirements	E
AUM4004A	Use measuring equipment	AUMATK4004	Use measuring equipment	Unit code updated to meet policy requirements	E
AUM4005A	Use sensors to acquire motor vehicle data for development purposes	AUMATR4002	Use sensors to acquire motor vehicle data for development purposes	Unit code updated to meet policy requirements	E
AUM4006A	Calibrate measuring equipment in automotive	AUMATK4005	Calibrate measuring equipment in automotive	Unit code updated to meet policy requirements	E

AUM08 v1.1 Unit code	AUM08 v1.1 Unit title	AUM12 v1 Unit code	AUM12 v1 Unit title	Comment in relation to AUM08 v1.1	E/N
	development		development		
AUM4007A	Test plant, tooling, equipment, product or systems	AUMATK4006	Test plant, tooling, equipment, product or systems	Unit code updated to meet policy requirements	E
AUM4008A	Install plant, equipment or systems	AUMATK4007	Install plant, equipment or systems	Unit code updated to meet policy requirements	E
AUM4009A	Maintain plant, tooling, equipment or systems	AUMATK4008	Maintain plant, tooling, equipment or systems	Unit code updated to meet policy requirements	E
AUM4010A	Repair plant, tooling, equipment or systems	AUMATK4009	Repair plant, tooling, equipment or systems	Unit code updated to meet policy requirements	E
AUM4011A	Manufacture or modify plant, tooling, equipment or systems	AUMATK4010	Manufacture or modify plant, tooling, equipment or systems	Unit code updated to meet policy requirements	E
AUM4012A	Apply quality assurance techniques	AUMAQA4001	Apply quality assurance techniques	Unit code updated to meet policy requirements	E
AUM4013A	Interpret manuals, drawings and/or circuits for plant, tooling, equipment or systems	AUMATK4011	Interpret manuals, drawings and circuits for plant, tooling, equipment or systems	Unit code and title updated to meet policy requirements	E
AUM4014A	Program and monitor computerised equipment	AUMAKM400 1	Program and monitor computerised equipment	Unit code updated to meet policy requirements	E

AUM08 v1.1 Unit code	AUM08 v1.1 Unit title	AUM12 v1 Unit code	AUM12 v1 Unit title	Comment in relation to AUM08 v1.1	E/N
AUM5001A	Coordinate project activities	AUMAMA5004	Coordinate project activities	Unit code updated to meet policy requirements	E
AUM5002A	Establish a test/trial for components of plant, tooling, equipment or systems	AUMFTK5001	Establish a test or trial for components of plant, tooling, equipment or systems	Unit code and title updated to meet policy requirements	E
AUM5003A	Create new product designs	AUMFTM5002	Create new product designs	Unit code updated to meet policy requirements	E
AUM5004A	Produce research reports	AUMFTA5006	Produce research reports	Unit code updated to meet policy requirements	E
AUM5005A	Develop conceptual models and prototypes	AUMFTM5003	Develop conceptual models and prototypes	Unit code updated to meet policy requirements	E
AUM5006A	Seek, evaluate, organise and prepare information	AUMFTA5007	Seek, evaluate, organise and prepare information	Unit code updated to meet policy requirements	E
AUM5301B	Produce drawings manually	AUMATA5008	Produce drawings manually	Unit code updated to meet policy requirements	E
AUM5403B	Produce computer-aided drawings (CAD)	AUMAKM5002	Produce computer-aided drawings	Unit code updated to meet policy requirements	E
AUM8001B	Contribute to workplace relationships and processes	AUMGMM3001	Contribute to workplace relationships and processes	Unit code updated to meet policy requirements	E
AUM8011B	Provide customer service	AUMGCA2001	Provide customer service	Unit code updated to meet policy	E

AUM08 v1.1 Unit code	AUM08 v1.1 Unit title	AUM12 v1 Unit code	AUM12 v1 Unit title	Comment in relation to AUM08 v1.1	E/N
				requirements	
AUM8012B	Prepare and document quotation	AUMANA3001	Prepare and document quotation	Unit code updated to meet policy requirements	E
AUM8013A	Participate in workplace productivity	AUMGMA3001	Participate in workplace productivity	Unit code updated to meet policy requirements	E
AUM8021B	Inspect work and apply organisation technical quality standards	AUMGQA3001	Inspect work and apply organisation technical quality standards	Unit code updated to meet policy requirements	E
AUM8032B	Control stock	AUMABM4001	Control stock	Unit code updated to meet policy requirements	E
AUM8041B	Prepare materials for fabrication using jigs/fixtures	AUMGTS3001	Prepare materials for fabrication using jigs and fixtures	Unit code and title updated to meet policy requirements	E
AUM8042B	Prepare materials for fabrication using manual processes	AUMGTS3002	Prepare materials for fabrication using manual processes	Unit code updated to meet policy requirements	E
AUM8043B	Read and interpret working drawings and work orders	AUMGTA2001	Read and interpret working drawings and work orders	Unit code updated to meet policy requirements	E
AUM8044B	Read and interpret engineering drawings and job specifications	AUMGTM3005	Read and interpret engineering drawings and job specifications	Unit code updated to meet policy requirements	E
AUM8051B	Conduct basic welding, thermal cutting, heating and gouging	AUMGTW3001	Conduct basic welding, thermal cutting, heating and gouging	Unit code updated to meet policy requirements	E

AUM08 v1.1 Unit code	AUM08 v1.1 Unit title	AUM12 v1 Unit code	AUM12 v1 Unit title	Comment in relation to AUM08 v1.1	E/N
	operations		operations		
AUM8052B	Conduct mechanical cutting operations	AUMGTW3002	Conduct mechanical cutting operations	Unit code updated to meet policy requirements	E
AUM8053B	Perform manual metal arc welding operations (MMAW)	AUMGTW3003	Perform manual metal arc welding operations	Unit code updated to meet policy requirements	E
AUM8056B	Perform gas tungsten arc welding operations (GTAW)	AUMGTW3004	Perform gas tungsten arc welding operations	Unit code updated to meet policy requirements	E
AUM8057B	Perform gas metal arc welding operations (GMAW)	AUMGTW3005	Perform gas metal arc welding operations	Unit code updated to meet policy requirements	E
AUM8061B	Fabricate plugs	AUMGTS3003	Fabricate plugs	Unit code updated to meet policy requirements	E
AUM8062B	Stamp and press parts	AUMATS2001	Stamp and press parts	Unit code updated to meet policy requirements	E
AUM8063B	Fabricate parts for sub-assemblies	AUMGTS3004	Fabricate parts for sub-assemblies	Unit code updated to meet policy requirements	E
AUM8064B	Machine parts	AUMGTW3006	Machine parts	Unit code updated to meet policy requirements	E
AUM8071B	Finish surfaces for painting	AUMGTP3001	Finish surfaces for painting	Unit code updated to meet policy requirements	E

AUM08 v1.1 Unit code	AUM08 v1.1 Unit title	AUM12 v1 Unit code	AUM12 v1 Unit title	Comment in relation to AUM08 v1.1	E/N
AUM8072B	Paint chassis or panels	AUMGTY3001	Paint chassis or panels	Unit code updated to meet policy requirements	E
AUM8074B	Rework paint faults	AUMGTP3002	Rework paint faults	Unit code updated to meet policy requirements	E
AUM8081B	Apply trim to components	AUMGTT2001	Apply trim to components	Unit code updated to meet policy requirements	E
AUM8082B	Assemble components	AUMGTM2001	Assemble components	Unit code updated to meet policy requirements	E
AUM8083B	Assemble frame and axle	AUMGTM3002	Assemble frame and axle	Unit code updated to meet policy requirements	E
AUM8084B	Install engine and drive train	AUMFTQ3001	Install engine and drive train	Unit code updated to meet policy requirements	E
AUM8085B	Mount and install assembled component to chassis or frame	AUMGTY3002	Mount and install assembled component to chassis or frame	Unit code updated to meet policy requirements	E
AUM8086B	Service after assembly	AUMGTA3002	Service after assembly	Unit code updated to meet policy requirements	E
AUM8087B	Assemble and install hydraulic system kit	AUMGTM3006	Assemble and install hydraulic system kit	Unit code updated to meet policy requirements	E
AUM8088B	Assemble and install pneumatic system kit	AUMGTM3007	Assemble and install pneumatic system kit	Unit code updated to meet policy requirements	E
AUM8089B	Assemble and install braking system kit	AUMGTB3001	Assemble and install braking system kit	Unit code updated to meet policy requirements	E

AUM08 v1.1 Unit code	AUM08 v1.1 Unit title	AUM12 v1 Unit code	AUM12 v1 Unit title	Comment in relation to AUM08 v1.1	E/N
AUM8090B	Install fixed and moveable glass components	AUMGTG3001	Install fixed and moveable glass components	Unit code updated to meet policy requirements	E
AUM8091B	Install or replace mechanical units/assemblies	AUMGTM3003	Install or replace mechanical units and assemblies	Unit code and title updated to meet policy requirements	E
AUM8092B	Install/fit out components	AUMGTM2004	Install and fit out components	Unit code and title updated to meet policy requirements	E
AUM8094B	Install or replace electrical / electronic units / assemblies	AUMGTR3001	Install or replace electrical and electronic units and assemblies	Unit code and title updated to meet policy requirements	E
AUM8095B	Perform wheel alignment operations	AUMGTD3001	Perform wheel alignment operations	Unit code updated to meet policy requirements	E
AUM8101B	Modify or rectify chassis/frame and associated components	AUMGTY3003	Modify or rectify chassis and frame and associated components	Unit code and title updated to meet policy requirements	E
AUM8102B	Manufacture or modify wiring harnesses	AUMGTR3002	Manufacture or modify wiring harnesses	Unit code updated to meet policy requirements	E
AUM8103B	Rectify/replace vehicle body panels and ancillary fittings	AUMGTN3001	Rectify and replace vehicle body panels and ancillary fittings	Unit code and title updated to meet policy requirements	E
AUM8104B	Bond/repair components using fibreglass reinforced plastic techniques	AUMGTM3008	Bond and repair components using fibreglass reinforced plastic techniques	Unit code and title updated to meet policy requirements	E
AUM8105B	Perform minor modifications/repairs to electrical	AUMGTR3003	Perform minor modifications and repairs to	Unit code and title updated to meet policy requirements	E

AUM08 v1.1 Unit code	AUM08 v1.1 Unit title	AUM12 v1 Unit code	AUM12 v1 Unit title	Comment in relation to AUM08 v1.1	E/N
	circuits/systems		electrical circuits and systems		
AUM8111B	Perform forklift driving and lifting operations	AUMABA3001	Perform forklift driving and lifting operations	Unit code updated to meet policy requirements	E
AUM8112B	Operate load shifting equipment	AUMABA3002	Operate load shifting equipment	Unit code updated to meet policy requirements	E
AUM8121B	Conduct final inspections and functional tests	AUMATA3002	Conduct final inspections and functional tests	Unit code updated to meet policy requirements	E
AUM8122B	Conduct simulated or road performance test	AUMATA4007	Conduct simulated or road performance test	Unit code updated to meet policy requirements	E
AUM8123B	Conduct welding inspection	AUMATW400 2	Conduct welding inspection	Unit code updated to meet policy requirements	E
AUM8141B	Prepare new product designs	AUMAMA400 3	Prepare new product designs	Unit code updated to meet policy requirements	E
AUMNT3001 B	Rectify faults in vehicle metal components	AUMATA3003	Rectify faults in vehicle metal components	Unit code updated to meet policy requirements	E
AUMNT3002 B	Rectify paintwork	AUMATP3001	Rectify paintwork	Unit code updated to meet policy requirements	E
AUMNT3003 B	Control paint line production processes	AUMATP3002	Control paint line production processes	Unit code updated to meet policy requirements	E
AUMNT3004 B	Conduct engine hot test	AUMFTE3001	Conduct engine hot test	Unit code updated to meet policy requirements	E
AUMNT3005 B	Rework production	AUMATE3001	Rework production	Unit code updated to meet policy	E

AUM08 v1.1 Unit code	AUM08 v1.1 Unit title	AUM12 v1 Unit code	AUM12 v1 Unit title	Comment in relation to AUM08 v1.1	E/N
	engines		engines	requirements	
AUMNT3006 B	Rectify mechanical faults on assembled vehicles	AUMATA3004	Rectify mechanical faults on assembled vehicles	Unit code updated to meet policy requirements	E
AUMNT3007 B	Rectify electrical faults on assembled vehicles	AUMATR3001	Rectify electrical faults on assembled vehicles	Unit code updated to meet policy requirements	E
AUMNT3008 B	Rectify assembly faults in assembled vehicles	AUMATA3005	Rectify assembly faults in assembled vehicles	Unit code updated to meet policy requirements	E
AUMNT3009 B	Conduct die coating	AUMFTA3002	Conduct die coating	Unit code updated to meet policy requirements	E
AUMNT3010 B	Conduct structural rectification of vehicle bodies	AUMATN3001	Conduct structural rectification of vehicle bodies	Unit code updated to meet policy requirements	E
AUMNT3011 B	Test welds ultrasonically	AUMATW3001	Test welds ultrasonically	Unit code updated to meet policy requirements	E
AUMNT3012 B	Conduct tool setting	AUMFTA3003	Conduct tool setting	Unit code updated to meet policy requirements	E
AUMNT3013 B	Monitor and maintain metals treatment plant operations	AUMFTA3004	Monitor and maintain metals treatment plant operations	Unit code updated to meet policy requirements	E

Overview

What is a Training Package?

A Training Package is an integrated set of nationally endorsed competency standards, assessment guidelines and Australian Qualifications Framework (AQF) qualifications for a specific industry, industry sector or enterprise.

Each Training Package:

- provides a consistent and reliable set of components for training, recognising and assessing people's skills, and may also have optional support materials
- enables nationally recognised qualifications to be awarded through direct assessment of workplace competencies
- encourages the development and delivery of flexible training which suits individual and industry requirements
- encourages learning and assessment in a work-related environment which leads to verifiable workplace outcomes.

How do Training Packages fit within the National Skills Framework?

The National Skills Framework applies nationally, is endorsed by the Ministerial Council for Vocational and Technical Education, and comprises the Australian Quality Training Framework 2010 (AQTF 2010), and Training Packages endorsed by the National Quality Council (NQC).

How are Training Packages developed?

Training Packages are developed by Industry Skills Councils or enterprises to meet the identified training needs of specific industries or industry sectors. To gain national endorsement of Training Packages, developers must provide evidence of extensive research, consultation and support within the industry area or enterprise.

How do Training Packages encourage flexibility?

Training Packages describe the skills and knowledge needed to perform effectively in the workplace without prescribing how people should be trained.

Training Packages acknowledge that people can achieve vocational competency in many ways by emphasising what the learner can do, not how or where they learned to do it. For example, some experienced workers might be able to demonstrate competency against the units of competency, and even gain a qualification, without completing a formal training program.

With Training Packages, assessment and training may be conducted at the workplace, off-the-job, at a training organisation, during regular work, or through work experience, work placement, work simulation or any combination of these.

Who can deliver and assess using Training Packages?

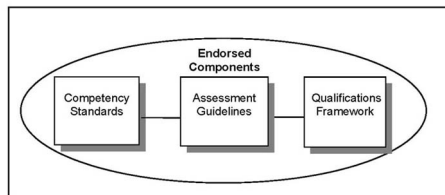
Training and assessment using Training Packages must be conducted by a Registered Training Organisation (RTO) that has the qualifications or specific units of competency on its scope of registration, or that works in partnership with another RTO, as specified in the AQTF 2010.

Training Package Components

Training Packages are made up of mandatory components endorsed by the NQC, and optional support materials.

Training Package Endorsed Components

The nationally endorsed components include the Competency Standards, Assessment Guidelines and Qualifications Framework. These form the basis of training and assessment in the Training Package and, as such, they must be used.



Competency Standards

Each unit of competency identifies a discrete workplace requirement and includes the knowledge and skills that underpin competency as well as language, literacy and numeracy; and occupational health and safety requirements. The units of competency must be adhered to in training and assessment to ensure consistency of outcomes.

Assessment Guidelines

The Assessment Guidelines provide an industry framework to ensure all assessments meet industry needs and nationally agreed standards as expressed in the Training Package and the AQTF 2010. The Assessment Guidelines must be followed to ensure the integrity of assessment leading to nationally recognised qualifications.

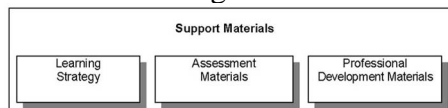
Qualifications Framework

Each Training Package provides details of those units of competency that must be achieved to award AQF qualifications. The rules around which units of competency can be combined to make up a valid AQF qualification in the Training Package are referred to as the 'packaging rules'. The packaging rules must be followed to ensure the integrity of nationally recognised qualifications issued.

Training Package Support Materials

The endorsed components of Training Packages are complemented and supported by optional support materials that provide for choice in the design of training and assessment to meet the needs of industry and learners.

Training Package support materials can relate to single or multiple units of competency, an industry sector, a qualification or the whole Training Package. They tend to fall into one or more of the categories illustrated below.



Training Package support materials are produced by a range of stakeholders such as RTOs, individual trainers and assessors, private and commercial developers and Government agencies.

Training Package, Qualification and Unit of Competency Codes

There are agreed conventions for the national codes used for Training Packages and their components. Always use the correct codes, exactly as they appear in the Training Package, **and with the code always before the title.**

Training Package Codes

Each Training Package has a unique five-character national code assigned when the Training Package is endorsed, for example XYZ08. The first three characters are letters identifying the Training Package industry coverage and the last two characters are numbers identifying the year of endorsement.

Qualification Codes

Within each Training Package, each qualification has a unique eight-character code, for example XYZ10108. Qualification codes are developed as follows:

- the first three letters identify the Training Package;
- the first number identifies the qualification level (noting that, in the qualification titles themselves, arabic numbers are **not** used);
- the next two numbers identify the position in the sequence of the qualification at that level; and
- the last two numbers identify the year in which the qualification was endorsed. (Where qualifications are added after the initial Training Package endorsement, the last two numbers may differ from other Training Package qualifications as they identify the year in which those particular qualifications were endorsed.)

Unit of Competency Codes

Within each Training Package, each unit of competency has a unique code. Unit of competency codes are assigned when the Training Package is endorsed, or when new units of competency are added to an existing endorsed Training Package. Unit codes are developed as follows:

- a typical code is made up of 12 characters, normally a mixture of uppercase letters and numbers, as in AUMATK1001 Select and use tools and equipment in an automotive manufacturing environment
- the first three characters signify the Training Package – AUM12 Automotive Manufacturing Training Package, the fourth character indicates the industry sector (i.e. A is common), the fifth and sixth character indicates the function or skill area (i.e. TK is technical tools and equipment). – in the above example and up to eight characters, relating to an industry sector, function or skill area, follow;
- the last character is always a letter and identifies the unit of competency version. An ‘A’ at the end of the code indicates that this is the original unit of competency. ‘B’, or another incremented version identifier means that minor changes have been made. Typically this would mean that wording has changed in the range statement or evidence guide, providing clearer intent; and
- where changes are made that alter the outcome, a new code is assigned and the title is changed.

Training Package, Qualification and Unit of Competency Titles

There are agreed conventions for titling Training Packages and their components. Always use the correct titles, exactly as they appear in the Training Package, and with the code always placed before the title.

Training Package Titles

The title of each endorsed Training Package is unique and relates the Training Packages broad industry coverage.

Qualification Titles

The title of each endorsed Training Package qualification is unique. Qualification titles use the following sequence:

- first, the qualification is identified as either Certificate I, Certificate II, Certificate III, Certificate IV, Diploma, Advanced Diploma, Vocational Graduate Certificate, or Vocational Graduate Diploma;
- this is followed by the words 'in' for Certificates I to IV, and 'of' for Diploma, Advanced Diploma, Vocational Graduate Certificate and Vocational Graduate Diploma;
- then, the industry descriptor, for example Telecommunications; and
- then, if applicable, the occupational or functional stream in brackets, for example (Computer Systems).
- For example: AUM40112 Certificate IV in Automotive Manufacturing

Unit of Competency Titles

Each unit of competency title is unique. Unit of competency titles describe the competency outcome concisely, and are written in sentence case.

For example: AUMFTA4005 Analyse a test vehicle for research purposes

Introduction to the AUM12 Automotive Manufacturing Training Package

The revised AUM12 Automotive Manufacturing Training Package Version One has been developed to replace the AUM08 Automotive Manufacturing Training Package Version 1.1. This training package includes a complete review and restructure of all unit codes in the training package. There has been the need for some time to address the structure of all AUM12 unit codes as they are inconsistent in the use of AQF and competency field identifiers. The review of the qualifications in this training package also presented an ideal opportunity to rationalise competencies and apply a structured methodology to the coding of units of competency that aligns with current training package policy.

This Training Package is designed to meet the training and skills recognition needs of the Australian automotive manufacturing industry sector, including occupational areas covering:

- Passenger motor vehicles
- Bus, truck and trailers

This training package also provides access to the apprenticeship streams provided within current National Industry Competency Standards leading to national qualifications, with traineeship pathways also available. It also enables further career advancement beyond trade apprenticeship and technical traineeship, with progression to Diploma.

Introduction to the Industry

The automotive industry is one of Australia's key manufacturing sectors and an important source of employment and research and development. Australia is only one of thirteen countries with the capability to design, engineer and produce vehicles from beginning to end. The Australian vehicle market is also one of the most open and competitive in the world.

Australia's automotive industry is comprised of two very distinct sectors – the automotive manufacturing sector and the automotive retail, services and repair sector.

The manufacturing sector includes three motor vehicle manufacturers (Holden, Ford and Toyota) and three large truck manufacturers (IVECO, Kenworth and Volvo Commercial Vehicles) and more than 180 specialist component manufacturers. This sector of the industry is also a significant exporter of vehicles and components.

The Motor Vehicle and Motor Vehicle Parts Manufacturing sector consists of firms primarily engaged in the manufacture of motor vehicles (including bus, trucks vans), engines, vehicle bodies, trailers, electrical components and parts.

This sector employed 52,217 people in 2010-11, the majority of which are located in Victoria (28,823 persons) followed by South Australia (8,500).

AUM12 Version 1 - Review Process

Throughout the development and improvement of this training package there has been extensive consultation with the bus, truck and trailer and passenger motor vehicle industry sector advisory committees that comprised of industry stakeholder representatives.

Specifically the committees included:

- Andrew Morgan - GM Holden Ltd
- Brendon Patchett - AMWU
- David Smith - AMWU
- Denis Brown - GM Holden Ltd
- Geraldine Buchanan - Toyota Motor Corporation Australia
- John Kelly - Ford Motor Company of Australia
- Jon Gee - AMWU
- Ken Wearmouth - Ford Motor Company of Australia
- Mark Coupe - Futuris Automotive
- Martin Marran - PACCAR Australia
- Paul Whittington - Ford Motor Company of Australia
- Peter Smithard - Volvo Group Australia
- Rose Beth Pardoe - Ford Motor Company of Australia
- Scott Batchelor - AMWU
- Shane Welsh - Toyota Motor Corporation Australia

Throughout the process, consultation has occurred through this group, and meeting minutes, letters of support and 'sign off' for qualifications.

New Training Package Information

The revised AUM12 Automotive Manufacturing Training Package has been developed to replace the AUM08 Automotive Manufacturing Training Package.

This Training Package is designed to meet the training and skills recognition needs of the Australian automotive manufacturing industry sector. It covers the competencies used by people employed in the automotive manufacturing industry sector in two areas: Passenger Motor Vehicle and Bus, Truck and Trailer.

It also provides access to the apprenticeship streams provided within current National Industry Competency Standards leading to national qualifications, with traineeship pathways also available. It also enables further career advancement beyond trade apprenticeship and technical traineeship, with progression to Diploma. Qualifications were reviewed and revised to reflect contemporary automotive manufacturing job roles, provide career pathways, as well as simplification of some of the qualification titles.

The bank of units of competency has been revised and rationalised. Part of the revision included bringing all units to the current approved format. Further information has been added to each unit to assist users.

Key Features of AUM12 Training Package

AUM12 covers the Passenger Motor Vehicle and Bus, Truck and Trailer Sectors. The following is a brief overview of the training package.

The AUM12 Training Package represents the skill needs of the automotive manufacturing sector in Australia. As such, the qualification design represents the major sectors in the industry. The focus is on clarity of occupational outcomes with flexibility to allow for future variation in roles. The principles of the qualifications that were considered include:

flexibility and options relevant to the industry will be a key feature of all qualifications to allow for ongoing change – restrictive ‘rules’ will be kept to a minimum whilst maintaining rigour of occupational outcomes

specialisations and requirements to achieve the specialisations, will be nominated within relevant qualifications

nominated specialisations will be based on industry sector criteria, in particular, industry development objectives and skills shortages.

Rationalisation and the reduction of unnecessary duplication is a national priority, though there is currently no agreed national definition of rationalisation. Where units have been merged or amalgamated this has been done to achieve:

reduced duplication within and between training products

a cohesive and flexible set of national training products to meet the skill development needs of industry, the community and individuals.

Qualifications Framework

The Australian Qualifications Framework

What is the Australian Qualifications Framework?

A brief overview of the Australian Qualifications Framework (AQF) follows. For a full explanation of the AQF, see the *AQF Implementation Handbook*.

http://www.aqf.edu.au/Portals/0/Documents/Handbook/AQF_Handbook_07.pdf

The AQF provides a comprehensive, nationally consistent framework for all qualifications in post-compulsory education and training in Australia. In the vocational education and training (VET) sector it assists national consistency for all trainees, learners, employers and providers by enabling national recognition of qualifications and Statements of Attainment.

Training Package qualifications in the VET sector must comply with the titles and guidelines of the AQF. Endorsed Training Packages provide a unique title for each AQF qualification which must always be reproduced accurately.

Qualifications

Training Packages can incorporate the following eight AQF qualifications.

- Certificate I in ...
- Certificate II in ...
- Certificate III in ...
- Certificate IV in ...
- Diploma of ...
- Advanced Diploma of ...
- Vocational Graduate Certificate of ...
- Vocational Graduate Diploma of ...

On completion of the requirements defined in the Training Package, a Registered Training Organisation (RTO) may issue a nationally recognised AQF qualification. Issuance of AQF qualifications must comply with the advice provided in the *AQF Implementation Handbook* and the AQTF 2010 *Essential Standards for Initial and Continuing Registration*.

Statement of Attainment

A Statement of Attainment is issued by a Registered Training Organisation when an individual has completed one or more units of competency from nationally recognised qualification(s)/courses(s). Issuance of Statements of Attainment must comply with the advice provided in the current *AQF Implementation Handbook* and the AQTF 2010 *Essential Standards for Initial and Continuing Registration*.

Under the AQTF 2010, RTOs must recognise the achievement of competencies as recorded on a qualification or Statement of Attainment issued by other RTOs. Given this, recognised competencies can progressively build towards a full AQF qualification.

AQF Guidelines and Learning Outcomes

The *AQF Implementation Handbook* provides a comprehensive guideline for each AQF qualification. A summary of the learning outcome characteristics and their distinguishing features for each VET related AQF qualification is provided below.

Certificate I

Characteristics of Learning Outcomes

Breadth, depth and complexity of knowledge and skills would prepare a person to perform a defined range of activities most of which may be routine and predictable.

Applications may include a variety of employment related skills including preparatory access and participation skills, broad-based induction skills and/or specific workplace skills. They may also include participation in a team or work group.

Distinguishing Features of Learning Outcomes

Do the competencies enable an individual with this qualification to:

- demonstrate knowledge by recall in a narrow range of areas;
- demonstrate basic practical skills, such as the use of relevant tools;
- perform a sequence of routine tasks given clear direction
- receive and pass on messages/information.

Certificate II

Characteristics of Learning Outcomes

Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of operations to be applied.

Performance of a prescribed range of functions involving known routines and procedures and some accountability for the quality of outcomes.

Applications may include some complex or non-routine activities involving individual responsibility or autonomy and/or collaboration with others as part of a group or team.

Distinguishing Features of Learning Outcomes

Do the competencies enable an individual with this qualification to:

- demonstrate basic operational knowledge in a moderate range of areas;
- apply a defined range of skills;
- apply known solutions to a limited range of predictable problems;
- perform a range of tasks where choice between a limited range of options is required;
- assess and record information from varied sources;
- take limited responsibility for own outputs in work and learning.

Certificate III

Characteristics of Learning Outcomes

Breadth, depth and complexity of knowledge and competencies would cover selecting, adapting and transferring skills and knowledge to new environments and providing technical advice and some leadership in resolution of specified problems. This would be applied across a range of roles in a variety of contexts with some complexity in the extent and choice of options available.

Performance of a defined range of skilled operations, usually within a range of broader related activities involving known routines, methods and procedures, where some discretion and judgement is required in the selection of equipment, services or contingency measures and within known time constraints.

Applications may involve some responsibility for others. Participation in teams including group or team co-ordination may be involved.

Distinguishing Features of Learning Outcomes

Do the competencies enable an individual with this qualification to:

- demonstrate some relevant theoretical knowledge
- apply a range of well-developed skills
- apply known solutions to a variety of predictable problems
- perform processes that require a range of well-developed skills where some discretion and judgement is required
- interpret available information, using discretion and judgement
- take responsibility for own outputs in work and learning
- take limited responsibility for the output of others.

Certificate IV

Characteristics of Learning Outcomes

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature. Performance of a broad range of skilled applications including the requirement to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills. Applications involve responsibility for, and limited organisation of, others.

Distinguishing Features of Learning Outcomes

Do the competencies enable an individual with this qualification to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts
- apply solutions to a defined range of unpredictable problems
- identify and apply skill and knowledge areas to a wide variety of contexts, with depth in some areas
- identify, analyse and evaluate information from a variety of sources
- take responsibility for own outputs in relation to specified quality standards
- take limited responsibility for the quantity and quality of the output of others.

Diploma

Characteristics of Learning Outcomes

Breadth, depth and complexity covering planning and initiation of alternative approaches to skills or knowledge applications across a broad range of technical and/or management requirements, evaluation and co-ordination.

The self directed application of knowledge and skills, with substantial depth in some areas where judgment is required in planning and selecting appropriate equipment, services and techniques for self and others.

Applications involve participation in development of strategic initiatives as well as personal responsibility and autonomy in performing complex technical operations or organising others. It may include participation in teams including teams concerned with planning and evaluation functions. Group or team co-ordination may be involved.

The degree of emphasis on breadth as against depth of knowledge and skills may vary between qualifications granted at this level.

Distinguishing Features of Learning Outcomes

Do the competencies or learning outcomes enable an individual with this qualification to:

- demonstrate understanding of a broad knowledge base incorporating theoretical concepts, with substantial depth in some areas
- analyse and plan approaches to technical problems or management requirements
- transfer and apply theoretical concepts and/or technical or creative skills to a range of situations
- evaluate information, using it to forecast for planning or research purposes
- take responsibility for own outputs in relation to broad quantity and quality parameters
- take some responsibility for the achievement of group outcomes.

Advanced Diploma

Characteristics of Learning Outcomes

Breadth, depth and complexity involving analysis, design, planning, execution and evaluation across a range of technical and/or management functions including development of new criteria or applications or knowledge or procedures.

The application of a significant range of fundamental principles and complex techniques across a wide and often unpredictable variety of contexts in relation to either varied or highly specific functions. Contribution to the development of a broad plan, budget or strategy is involved and accountability and responsibility for self and others in achieving the outcomes is involved.

Applications involve significant judgement in planning, design, technical or leadership/guidance functions related to products, services, operations or procedures. The degree of emphasis on breadth as against depth of knowledge and skills may vary between qualifications granted at this level.

Distinguishing Features of Learning Outcomes

Do the competencies or learning outcomes enable an individual with this qualification to:

- demonstrate understanding of specialised knowledge with depth in some areas
- analyse, diagnose, design and execute judgements across a broad range of technical or management functions
- generate ideas through the analysis of information and concepts at an abstract level
- demonstrate a command of wide-ranging, highly specialised technical, creative or conceptual skills
- demonstrate accountability for personal outputs within broad parameters
- demonstrate accountability for personal and group outcomes within broad parameters.

Vocational Graduate Certificate

Characteristics of competencies or learning outcomes

- The self-directed development and achievement of broad and specialised areas of knowledge and skills, building on prior knowledge and skills.
- Substantial breadth and complexity involving the initiation, analysis, design, planning, execution and evaluation of technical and management functions in highly varied and highly specialised contexts.
- Applications involve making significant, high-level, independent judgements in major broad or planning, design, operational, technical and management functions in highly varied and specialised contexts. They may include responsibility and broad-ranging accountability for the structure, management and output of the work or functions of others.
- The degree of emphasis on breadth, as opposed to depth, of knowledge and skills may vary between qualifications granted at this level.

Distinguishing features of learning outcomes

- Demonstrate the self-directed development and achievement of broad and specialised areas of knowledge and skills, building on prior knowledge and skills.
- Initiate, analyse, design, plan, execute and evaluate major broad or technical and management functions in highly varied and highly specialised contexts.
- Generate and evaluate ideas through the analysis of information and concepts at an abstract level.
- Demonstrate a command of wide-ranging, highly specialised technical, creative or conceptual skills in complex contexts.
- Demonstrate responsibility and broad-ranging accountability for the structure, management and output of the work or functions of others.

Vocational Graduate Diploma

Characteristics of competencies or learning outcomes

- The self-directed development and achievement of broad and specialised areas of knowledge and skills, building on prior knowledge and skills.
- Substantial breadth, depth and complexity involving the initiation, analysis, design, planning, execution and evaluation of major functions, both broad and highly specialised, in highly varied and highly specialised contexts.
- Further specialisation within a systematic and coherent body of knowledge.
- Applications involve making high-level, fully independent, complex judgements in broad planning, design, operational, technical and management functions in highly varied and highly specialised contexts. They may include full responsibility and accountability for all aspects of work and functions of others, including planning, budgeting and strategy development.
- The degree of emphasis on breadth, as opposed to depth, of knowledge and skills may vary between qualifications granted at this level.

Distinguishing features of learning outcomes

- Demonstrate the self-directed development and achievement of broad and highly specialised areas of knowledge and skills, building on prior knowledge and skills.
- Initiate, analyse, design, plan, execute and evaluate major functions, both broad and within highly varied and highly specialised contexts.
- Generate and evaluate complex ideas through the analysis of information and concepts at an abstract level.
- Demonstrate an expert command of wide-ranging, highly specialised, technical, creative or conceptual skills in complex and highly specialised or varied contexts.
- Demonstrate full responsibility and accountability for personal outputs.
- Demonstrate full responsibility and accountability for all aspects of the work or functions of others, including planning, budgeting and strategy.

Qualifications and Packaging Rules

AUM12 Qualifications

Qualification requirements from Certificate I to Diploma have been altered, in some cases significantly, however, more importantly, they allow for flexibility while the creation of descriptors within qualifications provide specialisation as appropriate.

While some variation occurs in numbers of units of competency across qualifications, occupational occupations align with the descriptions provided by the AQF at various levels.

VET in Schools

The delivery and assessment of competence under this package is seen as appropriately designed for VET in Schools and these programs are to be encouraged.

However, due to the requirement to demonstrate competence, it may be difficult for a school to assess and award qualifications within AUM12, except in close partnerships with other RTOs or organisations within the industry.

Transition Arrangements

Qualifications achieved from AUM08 will be recognised.

People who have attained units of competency from AUM08, should be granted equivalent units of competency in AUM12, hence, credit towards a full AUM12 qualification. A comprehensive mapping from AUM08 to AUM12 is included.

AUM12 Assessment Criteria

AUM12 has adopted the mandatory Assessment Guidelines, which provide the endorsed framework for assessment of units of competency in this Training Package. They are designed to ensure that assessment is consistent with the AQTF 2010. Assessments against units of competency in this Training Package must be carried out in accordance with these Assessment Guidelines.

Additional assessment advice is provided below with regard to simulated workplace environments. Some emphasis has been given to the establishment of partnerships in delivery and assessment to ensure satisfactory demonstration of workplace competence. This section provides an overview of the requirements for assessment when using the AUM12 Training Package, including a summary of the AQTF 2010 requirements, licensing/registration requirements, and assessment pathways.

Assessment in the Automotive Manufacturing Industry

The automotive manufacturing industry considers skills and knowledge demonstrated in a real workplace environment to be of great importance. While assessment of the units of competency in the AUM12 Training Package can be carried out in a simulated work environment, the industry strongly recommends that assessment of skills acquired is conducted under partnership arrangement in the workplace.

Assessment of competence requires the collection of evidence which should be conducted over a period of time. This assessment approach may include demonstration at the workplace and/or a simulated work environment to ensure that demonstration of competence is valid and reliable. The individual being assessed needs to be aware that the collection of evidence is ongoing and part of planning, conducting and reviewing the assessment process.

Simulated Work Environment

The AUM12 Training Package defines Simulated Work Environment as a model of convenience that is established to resemble the real thing which is for training purposes only.

Should it be necessary to conduct competency-based training and/or assessment in a simulated work environment and/or worksite, both the environment and/or worksite must resemble the real circumstances according to the task required to be assessed. These tasks should not be interpreted as being projects that are related to the off-the-job training outcomes rather than skills acquired within any given competency standard.

Units of competency from the AUM12 Training Package should wherever possible be assessed in a work environment. Where this is not possible assessment may occur in a simulated environment.

A simulated work environment may be required for the following reasons:

- the candidate may not have access to a workplace (e.g. Certificate I qualification, which is targeted at VET in Schools)
- the workplace may not use the relevant skill, equipment or process
- conducting assessments may be disruptive or interfere with work requirements, for example, there may be ethical, privacy or confidentiality issues to consider
- it may not be appropriate to apply the skills in the workplace due to potential risks, such as occupational health and safety (OHS) or equipment being damaged.

In order to be valid and reliable, the simulation must closely resemble what occurs in a real work environment. The simulated work environment should involve a range of activities that reflect real work experience.

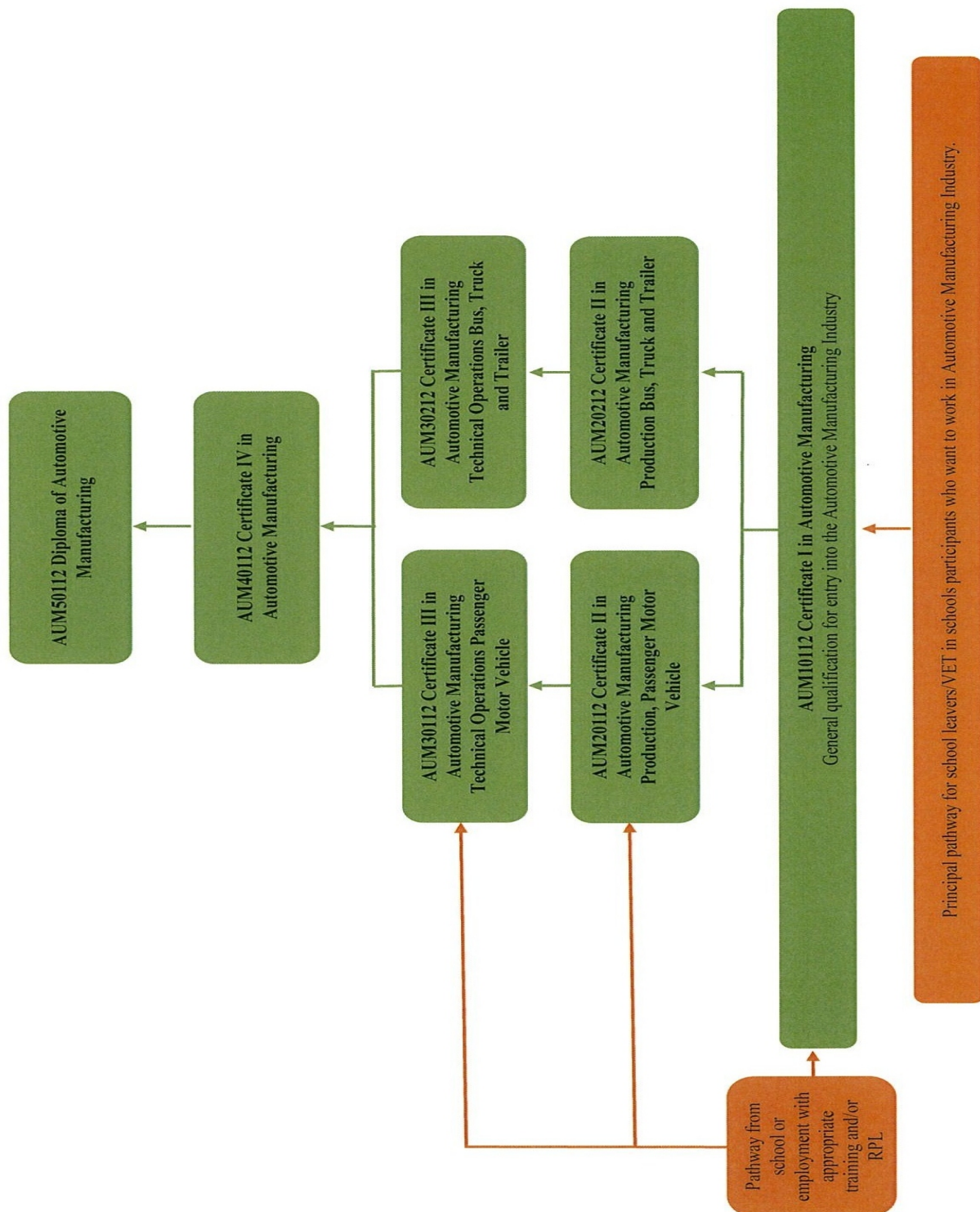
It is critical that when a simulated work environment is being set up that the assessor is thoroughly familiar with the units of competence as well as experienced in the current circumstances of the work.

In deciding whether a simulation or an assessment environment has been adequately set up, the following questions should be considered. Are there opportunities to:

- test the full range of equipment?
- use up to date equipment and software?
- reflect times and deadlines?
- show the complexity of dealing with multiple tasks?
- involve prioritising among competing tasks?
- deal with customers, including difficult ones?
- work with others in a team?
- communicate with diverse groups?
- find, discuss and test solutions to problems?
- explore health and safety issues?
- answer practically oriented, applied knowledge questions?
- show the level of written and verbal expression sufficient for the work requirements?

Qualification Pathways

The following pathways charts are provided to show the types of pathways into and from qualifications that are possible with this Training Package. For more information about qualifications and pathways contact Auto Skills Australia - info@autoskillsaustralia.com.au



Skill Sets

Definition

Skill sets are defined as single units of competency, or combinations of units of competency from an endorsed Training Package, which link to a licence or regulatory requirement, or defined industry need.

Wording on Statements of Attainment

Skill sets are a way of publicly identifying logical groupings of units of competency which meet an identified need or industry outcome. Skill sets are not qualifications.

Where skill sets are identified in a Training Package, the Statement of Attainment can set out the competencies a person has achieved in a way that is consistent and clear for employers and others. This is done by including the wording ‘these competencies meet *[insert skill set title or identified industry area]* need’ on the Statement of Attainment. This wording applies only to skill sets that are formally identified as such in the endorsed Training Package. See the 2010 edition of the AQF Implementation Handbook for advice on wording on Statements of Attainment. http://www.aqf.edu.au/Portals/0/Documents/Handbook/AQF_Handbook_07.pdf

Skill Sets in this Training Package

This section provides information on Skill Sets within this Training Package, with the following important disclaimer: Readers should ensure that they have also read the part of the Training Package that outlines licensing and regulatory requirements.

Where this section is blank, nationally recognised Skill Sets have yet to be identified in this industry.

There are no Skill Sets in this Training Package.

Assessment Guidelines

Introduction

These Assessment Guidelines provide the endorsed framework for assessment of units of competency in this Training Package. They are designed to ensure that assessment is consistent with the *Australian Quality Training Framework (AQTF) Essential Standards for Initial and Continuing Registration*. Assessments against the units of competency in this Training Package must be carried out in accordance with these Assessment Guidelines.

Assessment System Overview

This section provides an overview of the requirements for assessment when using this Training Package, including a summary of the AQTF requirements; licensing and registration requirements; and assessment pathways.

Quality assessment underpins the credibility of the vocational education and training sector. The Assessment Guidelines of a Training Package are an important tool in supporting quality assessment.

Assessment within the National Skills Framework is the process of collecting evidence and making judgements about whether competency has been achieved to confirm whether an individual can perform to the standards expected in the workplace, as expressed in the relevant endorsed unit of competency.

Assessment must be carried out in accordance with the:

- benchmarks for assessment
- specific industry requirements [where industry specific requirements are adequately covered by the Training Package Assessment Guidelines Mandatory Text, this dot point should be deleted]
- principles of assessment
- rules of evidence
- assessment requirements set out in the AQTF

Benchmarks for Assessment

The endorsed units of competency in this Training Package are the benchmarks for assessment. As such, they provide the basis for nationally recognised Australian Qualifications Framework (AQF) qualifications and Statements of Attainment issued by Registered Training Organisations (RTOs).

Industry Requirements

Where necessary, Industry requirements additional to the Training Package Assessment Guidelines can be inserted here.

This may include advice on:

- the context in which assessment is conducted,
- industry workplace conditions and expectations,
- realistic simulated work environments that are acceptable to industry; and
- in general terms, of suitable/current resources and equipment.

[NOTE: where industry specific requirements are adequately covered by the Training Package Assessment Guidelines Mandatory Text, this section should be deleted.]

Principles of Assessment

All assessments carried out by RTOs are required to demonstrate compliance with the principles of assessment:

- validity
- reliability
- flexibility
- fairness
- sufficiency

These principles must be addressed in the:

- design, establishment and management of the assessment system for this Training Package
- development of assessment tools, and
- the conduct of assessment.

Validity

Assessment is valid when the process is sound and assesses what it claims to assess. Validity requires that:

- (a) assessment against the units of competency must cover the broad range of skills and knowledge that are essential to competent performance
- (b) assessment of knowledge and skills must be integrated with their practical application

(c) judgement of competence must be based on sufficient evidence (that is, evidence gathered on a number of occasions and in a range of contexts using different assessment methods). The specific evidence requirements of each unit of competency provide advice on sufficiency

Reliability

Reliability refers to the degree to which evidence presented for assessment is consistently interpreted and results in consistent assessment outcomes. Reliability requires the assessor to have the required competencies in assessment and relevant vocational competencies (or to assess in conjunction with someone who has the vocational competencies). It can only be achieved when assessors share a common interpretation of the assessment requirements of the unit(s) being assessed.

Flexibility

To be flexible, assessment should reflect the candidate's needs; provide for recognition of competencies no matter how, where or when they have been acquired; draw on a range of methods appropriate to the context, competency and the candidate; and support continuous competency development.

Fairness

Fairness in assessment requires consideration of the individual candidate's needs and characteristics, and any reasonable adjustments that need to be applied to take account of them. It requires clear communication between the assessor and the candidate to ensure that the candidate is fully informed about, understands and is able to participate in, the assessment process, and agrees that the process is appropriate. It also includes an opportunity for the person being assessed to challenge the result of the assessment and to be reassessed if necessary.

Sufficiency

Sufficiency relates to the quality and quantity of evidence assessed. It requires collection of enough *appropriate* evidence to ensure that all aspects of competency have been satisfied and that competency can be demonstrated repeatedly. Supplementary sources of evidence may be necessary. The specific evidence requirements of each unit of competency provide advice on sufficiency. Sufficiency is also one of the rules of evidence.

Rules of Evidence

The rules of evidence guide the collection of evidence that address the principles of validity and reliability, guiding the collection of evidence to ensure that it is valid, sufficient, current and authentic.

Valid

Valid evidence must relate directly to the requirements of the unit of competency. In ensuring evidence is valid, assessors must ensure that the evidence collected supports demonstration of the outcomes and performance requirements of the unit of competency together with the knowledge and skills necessary for competent performance. Valid evidence must encapsulate the breadth and depth of the unit of competency, which will necessitate using a number of different assessment methods.

Sufficient

Sufficiency relates to the quality and quantity of evidence assessed. It requires collection of enough appropriate evidence to ensure that all aspects of competency have been satisfied and that competency can be demonstrated repeatedly. Supplementary sources of evidence may be necessary. The specific evidence requirements of each unit of competency provide advice on sufficiency.

Current

In assessment, currency relates to the age of the evidence presented by a candidate to demonstrate that they are still competent. Competency requires demonstration of current performance, so the evidence collected must be from either the present or the very recent past.

Authentic

To accept evidence as authentic, an assessor must be assured that the evidence presented for assessment is the candidate's own work.

Assessment Requirements of the Australian Quality Training Framework

Assessment leading to nationally recognised AQF qualifications and Statements of Attainment in the vocational education and training sector must meet the requirements of the AQTF as expressed in the AQTF 2010 *Essential Standards for Registration*.

The AQTF 2010 *Essential Standards for Initial and Continuing Registration* can be downloaded from <www.training.com.au>.

The following points summarise the assessment requirements.

Registration of Training Organisations

Assessment must be conducted by, or on behalf of, an RTO formally registered by a State or Territory Registering Body in accordance with the AQTF. The RTO must have the specific units of competency and/or AQF qualifications on its scope of registration.

Quality Training and Assessment

Each RTO must provide quality training and assessment across all its operations. See the AQTF 2010 *Essential Standards for Initial and Continuing Registration*, Standard 1.

Assessor Competency Requirements

Each person involved in training and assessment must be competent for the functions they perform. See the AQTF 2010 *Essential Standards for Initial and Continuing Registration*, Standard 1 for assessor (and trainer) competency requirements. See also the AQTF 2010 *Users' Guide to the Essential Standards for Registration* – Appendix 2.

Assessment Requirements

The RTOs assessments, including RPL, must meet the requirements of the relevant endorsed Training Package. See the AQTF 2010 *Essential Standards for Initial and Continuing Registration*.

Assessment Strategies

Each RTO must have strategies for training and assessment that meet the requirements of the relevant Training Package or accredited course and are developed in consultation with industry stakeholders. See the AQTF 2010 *Essential Standards for Initial and Continuing Registration*.

National Recognition

Each RTO must recognise the AQF qualifications and Statements of Attainment issued by any other RTO. See the AQTF 2010 *Essential Standards for Initial and Continuing Registration*.

Access and Equity and Client Outcomes

Each RTO must adhere to the principles of access and equity and maximise outcomes for its clients. See the AQTF 2010 *Essential Standards for Initial and Continuing Registration*.

Monitoring Assessments

Training and/or assessment provided on behalf of the RTO must be monitored to ensure that it is in accordance with all aspects of the AQTF 2010 *Essential Standards for Initial and Continuing Registration*.

Recording Assessment Outcomes

Each RTO must manage records to ensure their accuracy and integrity. See the AQTF 2010 *Essential Standards for Initial and Continuing Registration*.

Issuing AQF qualifications and Statement of Attainment

Each RTO must issue AQF qualifications and Statements of Attainment that meet the requirements of the current *AQF Implementation Handbook* and the endorsed Training Packages within the scope of its registration. An AQF qualification is issued once the full requirements for a qualification, as specified in the nationally endorsed Training Package are met. A Statement of Attainment is issued when an individual has completed one or more units of competency from nationally recognised qualification(s)/courses(s). See the AQTF and the edition of the *AQF Implementation Handbook*—available on the AQF Council website <www.aqf.edu.au>

Licensing/Registration Requirements

This section provides information on licensing/registration requirements for this Training Package, with the following important disclaimer.

The developers of this Training Package consider that no licensing or registration requirements apply to RTOs, assessors or candidates with respect to this Training Package. Contact the relevant State or Territory Department(s) to check if there are any licensing or registration requirements with which you must comply. For contact details of licensing authorities go to the following link:

Licence Recognition (<http://www.licencerecognition.gov.au/authorities.aspx>)

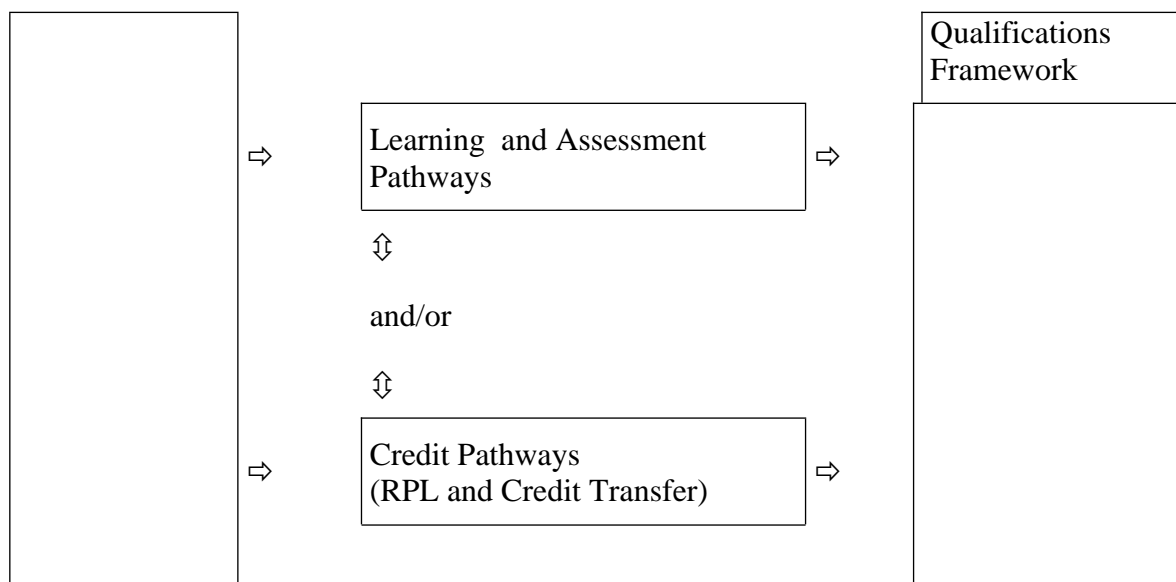
Pathways

The competencies in this Training Package may be attained in a number of ways including through:

- formal or informal education and training
- experiences in the workplace
- general life experience, and/or
- any combination of the above.

Assessment under this Training Package leading to an AQF qualification or Statement of Attainment may follow a learning and assessment pathway, or a recognition pathway, or a combination of the two as illustrated in the following diagram.





Each of these assessment pathways leads to full recognition of competencies held – the critical issue is that the candidate is competent, not how the competency was acquired. Assessment, by any pathway, must comply with the assessment requirements set out in the Assessment Guidelines of the Training Package, the AQTF and, where relevant, the Australian Qualifications Framework.

Learning and Assessment Pathways

Usually, learning and assessment are integrated, with evidence being collected and feedback provided to the candidate at anytime throughout the learning and assessment process. Learning and assessment pathways may include structured programs in a variety of contexts using a range of strategies to meet different learner needs. Structured learning and assessment programs could be: group-based, work-based, project-based, self-paced, action learning-based; conducted by distance or e-learning; and/or involve practice and experience in the workplace.

Learning and assessment pathways to suit Australian Apprenticeships have a mix of formal structured training and structured workplace experience with formative assessment activities through which candidates can acquire and demonstrate skills and knowledge from the relevant units of competency.

Credit Pathways

Credit is the value assigned for the recognition of equivalence in content between different types of learning and/or qualifications which reduces the volume of learning required to achieve a qualification.

Credit arrangements must be offered by all RTOs that offer Training Package qualifications. Each RTO must have a systematic institutional approach with clear, accessible and transparent policies and procedures.

Competencies already held by individuals can be formally assessed against the units of competency in this Training Package, and should be recognised regardless of how, when or where they were acquired, provided that the learning is relevant to the unit of competency outcomes.

Recognition of Prior Learning

Recognition of Prior Learning (RPL) is an assessment process which determines the credit outcomes of an individual application for credit.

The availability of Recognition of Prior Learning (RPL) provides all potential learners with access to credit opportunities.

The recognition of prior learning pathway is appropriate for candidates who have previously attained skills and knowledge and who, when enrolling in qualifications, seek to shorten the duration of their training and either continue or commence working. This may include the following groups of people:

- existing workers;
- individuals with overseas qualifications;
- recent migrants with established work histories;
- people returning to the workplace; and
- people with disabilities or injuries requiring a change in career.
-

As with all assessment, RPL assessment should be undertaken by academic or teaching staff with expertise in the subject, content of skills area, as well as knowledge of and expertise in RPL assessment policies and procedures.

Assessment methods used for RPL should provide a range of ways for individuals to demonstrate that they have met the required outcomes and can be granted credit. These might include:

- questioning (oral or written)
- consideration of a portfolio and review of contents
- consideration of third party reports and/or other documentation such as documentation such as articles, reports, project material, papers, testimonials or other products prepared by the RPL applicant that relate to the learning outcomes of the relevant qualification component
- mapping of learning outcomes from prior formal or non-formal learning to the relevant qualification components
- observation of performance, and
- participation in structured assessment activities the individual would normally be required to undertake if they were enrolled in the qualification component/s.

In a Recognition of Prior Learning (RPL) pathway, the candidate provides current, quality evidence of their competency against the relevant unit of competency. This process may be directed by the candidate and verified by the assessor. Where the outcomes of this process indicate that the candidate is competent, structured training is not required. The RPL requirements of the AQTF must be met.

As with all assessment, the assessor must be confident that the evidence indicates that the candidate is currently competent against the endorsed unit of competency. This evidence may take a variety of forms and might include certification, references from past employers, testimonials from clients, work samples and/or observation of the candidate. The onus is on candidates to provide sufficient evidence to satisfy assessors that they currently hold the relevant competencies. In judging evidence, the assessor must ensure that the evidence of prior learning is:

- authentic (the candidate's own work);
- valid (directly related to the current version of the relevant endorsed unit of competency);
- reliable (shows that the candidate consistently meets the endorsed unit of competency);
- current (reflects the candidate's current capacity to perform the aspect of the work covered by the endorsed unit of competency); and
- sufficient (covers the full range of elements in the relevant unit of competency and addresses the four dimensions of competency, namely task skills, task management skills, contingency management skills, and job/role environment skills).

Credit Transfer

Credit transfer is a process which provides learners with agreed and consistent credit outcomes based on equivalences in content between matched qualifications.

This process involves education institutions:

- mapping, comparing and evaluating the extent to which the defined *learning outcomes and assessment requirements* of the individual *components of one qualification* are equivalent to the learning outcomes and assessment requirements of the individual components of another qualification
- making an educational judgment of the credit outcomes to be assigned between the matched components of the two qualifications
- setting out the agreed credit outcomes in a documented arrangement or agreement, and
- publicising the arrangement/agreement and credit available.

Combination of Pathways

Credit may be awarded on the basis of a combination of credit transfer plus an individual RPL assessment for additional learning. Once credit has been awarded on the basis of RPL, subsequent credit transfer based on these learning outcomes should not include revisiting the RPL assessment but should be based on credit transfer or articulation or other arrangements between providers.

Where candidates for assessment have gained competencies through work and life experience and gaps in their competence are identified, or where they require training in new areas, a combination of pathways may be appropriate.

In such situations, the candidate may undertake an initial assessment to determine their current competency. Once current competency is identified, a structured learning and assessment program ensures that the candidate acquires the required additional competencies identified as gaps.

Assessor Requirements

This section identifies the specific requirements on the vocational competence and experience for assessors, to ensure that they meet the needs of industry and their obligations under AQTF, and clarifies how others may contribute to the assessment process where one person alone does not hold all the required competencies.

Assessor Competencies

The AQTF specifies mandatory competency requirements for assessors. For information, Element 1.4 from the AQTF 2007 *Essential Standards for Registration* follows:

1.4 Training and assessment are conducted by trainers and assessors who:

- a) have the necessary training and assessment competencies as determined by the National Quality Council or its successors, and
- b) have the relevant vocational competencies at least to the level being delivered or assessed, and
- c) can demonstrate current industry skills directly relevant to the training/assessment being undertaken, and
- d) continue to develop their Vocational Education and Training (VET) knowledge and skills as well as their industry currency and trainer/assessor competence.

* See AQTF 2010 *Users' Guide to the Essential Standards for Registration* – Appendix 2

Designing Assessment Tools

This section provides an overview on the use and development of assessment tools.

Use of Assessment Tools

Assessment tools provide a means of collecting the evidence that assessors use in making judgements about whether candidates have achieved competency.

There is no set format or process for the design, production or development of assessment tools. Assessors may use prepared assessment tools, such as those specifically developed to support this Training Package, or they may develop their own.

Using Prepared Assessment Tools

If using prepared assessment tools, assessors should ensure these relate to the current version of the relevant unit of competency. The current unit of competency can be checked on the National Register <www.ntis.gov.au>.

Developing Assessment Tools

When developing their own assessment tools, assessors must ensure that the tools:

- are benchmarked against the relevant unit or units of competency;
- are reviewed as part of the validation of assessment strategies required under the AQTF; and
- meet the assessment requirements expressed in the AQTF 2010 *Essential Standards for Initial and Continuing Registration*.

A key reference for assessors developing assessment tools is TAE10 Training and Education Training Package.

Language, Literacy and Numeracy

The design of assessment tools must reflect the language, literacy and numeracy competencies required for the performance of a task in the workplace and not exceed these expectations.

Conducting Assessment

This section details the mandatory assessment requirements and provides information on equity in assessment including reasonable adjustment.

Mandatory Assessment Requirements

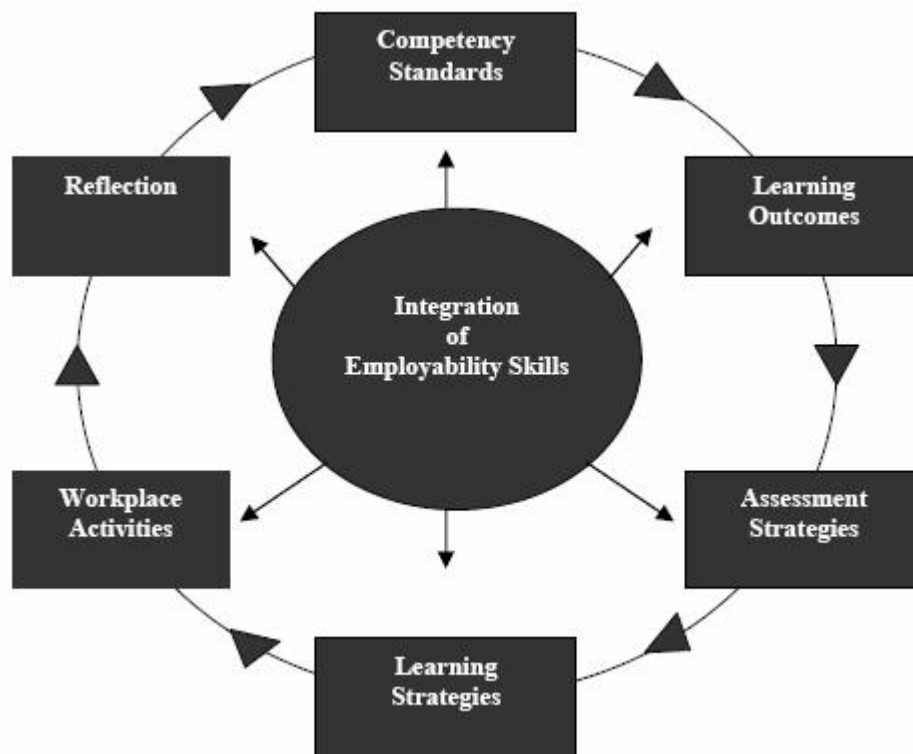
Assessments must meet the criteria set out in the AQTF 2010 *Essential Standards for Initial and Continuing Registration*. For information, the mandatory assessment requirements from Standard 1 from the AQTF 2010 *Essential Standards for Initial and Continuing Registration* are as follows:

1.5 Assessment, including Recognition of Prior Learning (RPL):

- a) meets the requirements of the relevant Training Package or accredited course
- b) is conducted in accordance with the principles of assessment and the rules of evidence
- c) meets workplace and, where relevant, regulatory requirements
- d) is systematically validated.

Assessment of Employability Skills

Employability Skills are integral to workplace competency. As such, they must be considered in the design, customisation, delivery and assessment of vocational education and training programs in an integrated and holistic way, as represented diagrammatically below.



Employability Skills are embedded within each unit of competency, and an Employability Skills Summary is available for each qualification. Training providers must use Employability Skills information in order to design valid and reliable training and assessment strategies. This analysis could include:

- reviewing units of competency to locate relevant Employability Skills and determine how they are applied within the unit
- analysing the Employability Skills Summary for the qualification in which the unit or units are packaged to help clarify relevant industry and workplace contexts and the application of Employability Skills at that qualification outcome
- designing training and assessment to address Employability Skills requirements.

The National Quality Council has endorsed a model for assessing and reporting Employability Skills, which contains further suggestions about good practice strategies in teaching, assessing, learning and reporting Employability Skills. The model is available from <http://www.training.com.au/>.

The endorsed approach includes learners downloading qualification specific Employability Skills Summaries for Training Package qualifications from an online repository at <http://employabilityskills.training.com.au>

For more information on Employability Skills in

Auto Skills Australia Training Packages go to the Auto Skills Australia website at [Auto Skills Australia Website \(http://www.autoskillsaustralia.com.au\)](http://www.autoskillsaustralia.com.au).

Employability Skills are reported on each qualification using the following statement on the qualification testamur: "A summary of the Employability Skills developed through this qualification can be downloaded from <http://employabilityskills.training.com.au> "

Access and Equity

An individual's access to the assessment process should not be adversely affected by restrictions placed on the location or context of assessment beyond the requirements specified in this Training Package: training and assessment must be bias-free.

Under the rules for their development, Training Packages must reflect and cater for the increasing diversity of Australia's VET clients and Australia's current and future workforce. The flexibilities offered by Training Packages should enhance opportunities and potential outcomes for all people so that we can all benefit from a wider national skills base and a shared contribution to Australia's economic development and social and cultural life.

Reasonable Adjustments

It is important that education providers take meaningful, transparent and reasonable steps to consult, consider and implement reasonable adjustments for students with disability.

Under the Disability Standards for Education 2005, education providers must make reasonable adjustments for people with disability to the maximum extent that those adjustments do not cause that provider unjustifiable hardship. While 'reasonable adjustment' and 'unjustifiable hardship' are different concepts and involve different considerations, they both seek to strike a balance between the interests of education providers and the interests of students with and without disability.

An adjustment is any measure or action that a student requires because of their disability, and which has the effect of assisting the student to access and participate in education and training on the same basis as students without a disability. An adjustment is reasonable if it achieves this purpose while taking into account factors such as the nature of the student's disability, the views of the student, the potential effect of the adjustment on the student and others who might be affected, and the costs and benefits of making the adjustment.

An education provider is also entitled to maintain the academic integrity of a course or program and to consider the requirements or components that are inherent or essential to its nature when assessing whether an adjustment is reasonable. There may be more than one adjustment that is reasonable in a given set of circumstances; education providers are required to make adjustments that are reasonable and that do not cause them unjustifiable hardship.

The Training Package Guidelines provides more information on reasonable adjustment, including examples of adjustments. Go to <http://www.deewr.gov.au/tpdh/Pages/home.aspx>.

Further Sources of Information

The section provides a listing of useful contacts and resources to assist assessors in planning, designing, conducting and reviewing of assessments against this Training Package.

Contacts

Auto Skills Australia

Street Address:

Level 4, 533 Little Lonsdale Street
MELBOURNE VIC 3000

Postal Address:

PO Box 13295
LAW COURTS VIC 8010

Ph: +61 3 8610 2500

Fax: +61 3 8610 2550

Email: info@autoskillsaustralia.com.au

Web: [Auto Skills Australia Website \(http://www.autoskillsaustralia.com.au\)](http://www.autoskillsaustralia.com.au)

Technical and Vocational Education and
Training (TVET) Australia Limited
Level 21, 390 St Kilda Road, Melbourne
VIC 3150
PO Box 12211, A'Beckett Street Post Office,
Melbourne, Victoria, 8006
Ph: +61 3 9832 8100
Fax: +61 3 9832 8198
Email: sales@tvetaustralia.com.au
Web: www.tvetaustralia.com.au

For information on the TAE10 Training and
Education Training Package contact:
Innovation & Business Skills Australia
Telephone: (03) 9815 7000
Facsimile: (03) 9815 7001
Email: virtual@ibsa.org.au
Web: www.ibsa.org.au

General Resources

*AQF Implementation Handbook, Fourth Edition 2007. Australian Qualifications Framework
Advisory Board, 2002* <www.aqf.edu.au>

*Australian Quality Training Framework (AQTF) and AQTF 2010 Users' Guide to the
Essential Standards for Registration –*
<http://www.training.com.au/pages/menuitem5cbe14d51b49dd34b225261017a62dbc.aspx>

For general information and resources go to <http://www.training.com.au/>

The National Register is an electronic database providing comprehensive information about
RTOs, Training Packages and accredited courses - <www.ntis.gov.au>

The Training Package Development Handbook site provides National Quality Council policy
for the development of Training Packages. The site also provides guidance material for the
application of that policy, and other useful information and links.

<http://www.deewr.gov.au/Skills/Overview/Policy/TPDH/Pages/main.aspx>

Assessment Resources

Registered training organisations (RTOs) are at the forefront of vocational education and
training (VET) in Australia. They translate the needs of industry into relevant, quality, client-
focussed training and assessment.

RTOs should strive for innovation in VET teaching and learning practices and develop highly
flexible approaches to assessment which take cognisance of specific needs of learners, in
order to improve delivery and outcomes of training.

Resources can be purchased or accessed from:

- TVET Australia – provides an integrated service to enable users of the national training system to identify and acquire training materials, identify copyright requirements and enter licenses for use of that material consistent with the scope and direction of the NQC.

<http://www.productservices.tvetaustralia.com.au/>

Competency Standards

What is competency?

The broad concept of industry competency concerns the ability to perform particular tasks and duties to the standard of performance expected in the workplace. Competency requires the application of specified skills, knowledge and attitudes relevant to effective participation in an industry, industry sector or enterprise.

Competency covers all aspects of workplace performance and involves performing individual tasks; managing a range of different tasks; responding to contingencies or breakdowns; and, dealing with the responsibilities of the workplace, including working with others. Workplace competency requires the ability to apply relevant skills, knowledge and attitudes consistently over time and in the required workplace situations and environments. In line with this concept of competency Training Packages focus on what is expected of a competent individual in the workplace as an outcome of learning, rather than focussing on the learning process itself.

Competency standards in Training Packages are determined by industry to meet identified industry skill needs. Competency standards are made up of a number of units of competency each of which describes a key function or role in a particular job function or occupation. Each unit of competency within a Training Package is linked to one or more AQF qualifications.

Contextualisation of Units of Competency by RTOs

Registered Training Organisations (RTOs) may contextualise units of competency in this endorsed Training Package to reflect required local outcomes. Contextualisation could involve additions or amendments to the unit of competency to suit particular delivery methods, learner profiles, specific enterprise equipment requirements, or to otherwise meet local needs. However, the integrity of the overall intended outcome of the unit of competency must be maintained.

Any contextualisation of units of competency in this Training Package must be within the bounds of the following advice:

- RTOs must not remove or add to the number and content of elements and performance criteria.
- RTOs can include specific industry terminology in the range statement.
- Any amendments and additions to the range statement made by RTOs must not diminish the breadth of application of the competency, or reduce its portability.
- RTOs may add detail to the evidence guide in areas such as the critical aspects of evidence or required resources and infrastructure—but only where these expand the breadth of the competency and do not limit its use.

Components of Units of Competency

The components of units of competency are summarised below, in the order in which they appear in each unit of competency.

Unit Title

The unit title is a succinct statement of the outcome of the unit of competency. Each unit of competency title is unique, both within and across Training Packages.

Unit Descriptor

The unit descriptor broadly communicates the content of the unit of competency and the skill area it addresses. Where units of competency have been contextualised from units of competency from other endorsed Training Packages, summary information is provided. There may also be a brief second paragraph that describes its relationship with other units of competency, and any licensing requirements.

Employability Skills

This sub-section contains a statement that the unit contains Employability skills.

Pre-requisite Units (optional)

If there are any units of competency that must be completed before the unit, these will be listed.

Application of the Unit

This sub-section fleshes out the unit of competency's scope, purpose and operation in different contexts, for example, by showing how it applies in the workplace.

Competency Field (Optional)

The competency field either reflects the way the units of competency are categorised in the Training Package or denotes the industry sector, specialisation or function. It is an optional component of the unit of competency.

Sector (optional)

The industry sector is a further categorisation of the competency field and identifies the next classification, for example an elective or supervision field.

Elements of Competency

The elements of competency are the basic building blocks of the unit of competency. They describe in terms of outcomes the significant functions and tasks that make up the competency.

Performance Criteria

The performance criteria specify the required performance in relevant tasks, roles, skills and in the applied knowledge that enables competent performance. They are usually written in passive voice. Critical terms or phrases may be written in bold italics and then defined in range statement, in the order of their appearance in the performance criteria.

Required Skills and Knowledge

The essential skills and knowledge are either identified separately or combined. *Knowledge* identifies what a person needs to know to perform the work in an informed and effective manner. *Skills* describe the application of knowledge to situations where understanding is converted into a workplace outcome.

Range Statement

The range statement provides a context for the unit of competency, describing essential operating conditions that may be present with training and assessment, depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts. As applicable, the meanings of key terms used in the performance criteria will also be explained in the range statement.

Evidence Guide

The evidence guide is critical in assessment as it provides information to the Registered Training Organisation (RTO) and assessor about how the described competency may be demonstrated. The evidence guide does this by providing a range of evidence for the assessor to make determinations, and by providing the assessment context. The evidence guide describes:

- conditions under which competency must be assessed including variables such as the assessment environment or necessary equipment;
- relationships with the assessment of any other units of competency;
- suitable methodologies for conducting assessment including the potential for workplace simulation;
- resource implications, for example access to particular equipment, infrastructure or situations;
- how consistency in performance can be assessed over time, various contexts and with a range of evidence; and
- the required underpinning knowledge and skills
-

Employability Skills in Units of Competency

The detail and application of Employability Skills facets will vary according to the job-role requirements of each industry. In developing Training Packages, industry stakeholders are consulted to identify appropriate facets of Employability Skills which are incorporated into the relevant units of competency and qualifications.

Employability Skills are not a discrete requirement contained in units of competency (as was the case with Key Competencies). Employability Skills are specifically expressed in the context of the work outcomes described in units of competency and will appear in elements, performance criteria, range statements and evidence guides. As a result, users of Training Packages are required to review the entire unit of competency in order to accurately determine Employability Skills requirements.

How Employability Skills relate to the Key Competencies

The eight nationally agreed Employability Skills now replace the seven Key Competencies in Training Packages. Trainers and assessors who have used Training Packages prior to the introduction of Employability Skills may find the following comparison useful.

Employability Skills Mayer Key Competencies

Communication	Communicating ideas and information
Teamwork	Working with others and in teams
Problem solving	Solving problems Using mathematical ideas and techniques
Initiative and enterprise	
Planning and organising	Collecting, analysing and organising information Planning and organising activities
Self-management	
Learning	
Technology	Using technology

When analysing the above table it is important to consider the relationship and natural overlap of Employability Skills. For example, using technology may involve communication skills and combine the understanding of mathematical concepts.

Explicitly embedding Employability Skills in units of competency

This Training Package seeks to ensure that industry-endorsed Employability Skills are explicitly embedded in units of competency. The application of each skill and the level of detail included in each part of the unit will vary according to industry requirements and the nature of the unit of competency.

Employability Skills must be both explicit and embedded within units of competency. This means that Employability Skills will be:

- embedded in units of competency as part of the other performance requirements that make up the competency as a whole
- explicitly described within units of competency to enable Training Packages users to identify accurately the performance requirements of each unit with regards to Employability Skills.

This Training Package also seeks to ensure that Employability Skills are well-defined and written into units of competency so that they are apparent, clear and can be delivered and assessed as an essential component of unit work outcomes.

Sample unit of competency components showing Employability Skills

The following table shows the sequence of a unit of competency, and each cell contains text taken from a range of units. It provides examples of where and how various Employability Skills could be embedded in each component.

Please note that in the example, the bracketed Employability Skills are provided for clarification only and would not be present in units of competency within this Training Package.

Unit Title	Give formal presentations and take part in meetings (Communication)
Unit Descriptor	This unit covers the skills and knowledge required to promote the use and implementation of innovative work practices to effect change. (Initiative and enterprise)
Element	Proactively resolve issues. (problem solving)
Performance Criteria	Information is organised in a format suitable for analysis and dissemination in accordance with organisational requirements. (Planning and organising)
Range Statement	Software applications may include email, internet, word processing, spreadsheet, database or accounting packages. (technology)
Required Skills and Knowledge	<p>Modify activities depending on differing workplace contexts, risk situations and environments. (Learning)</p> <p>Work collaboratively with others during a fire emergency. (teamwork)</p> <p>Instructions, procedures and other information relevant the maintenance of vessel and port security. (Communication)</p>
Evidence Guide	<p>Evidence of having worked constructively with a wide range of community groups and stakeholders to solve problems and adapt or design new solutions to meet identified needs in crime prevention. In particular, evidence must be obtained on the ability to:</p> <ul style="list-style-type: none">• assess response options to identified crime-prevention needs and determine the optimal action to be implemented• in consultation with relevant others, design an initiative to address identified issues. (Initiative and enterprise).

Employability Skills Summaries and units of competency

An Employability Skills Summary exists for each qualification. Summaries include broad advice on industry expectations with regard to Employability Skills at the qualification level. Summaries should be used by trainers and assessors to assist in identifying the Employability Skills requirements contained within units of competency.