



Australian Government

CPC40912 Certificate IV in Plumbing and Services

Release: 3

CPC40912 Certificate IV in Plumbing and Services

Modification History

Version Comment

- 1 Revised qualification deemed equivalent to CPC40912
- 2
 - one new elective unit added to the fire services stream (CPCPFS4027A Commission fire sprinkler systems)
 - elective units updated to equivalent versions:
 - CPCPGS4011C Design and size consumer gas installations
 - CPCPGS4023B Install, commission and service Type B gas appliances
 - imported elective unit BSBPMG510A updated to current version (BSBPMG522A Undertake project work)
 - minor editorial correction to Title
- 3 Update superseded imported units from elective list with equivalent current unit for:
 - BSBCUS301B to BSBCUS301
 - BSBINN301A to BSBINN301
 - BSBITU201A to BSBITU201
 - BSBITU202A to BSBITU202
 - BSBITU301A to BSBITU301
 - BSBLED401A to BSBLED401
 - BSBMGT403A to BSBMGT403
 - BSBPMG522A to BSBPMG522
 - BSBSMB401A to BSBSMB401
 - BSBSMB402A to BSBSMB402
 - BSBSMB404A to BSBSMB404
 - BSBSMB405B to BSBSMB405
 - BSBSMB406A to BSBSMB406
 - BSBSMB407A to BSBSMB407
 - BSBWOR401A to BSBLDR402
 - BSBWOR402A to BSBLDR403
 - BSBWRT401A to BSBWRT401
 - TAEDEL402A to TAEDEL402

This version released with CPC08 Version 9.3.

Description

This qualification provides an outcome for:

- experienced fire operators with responsibility for project design and supervision (Fire services stream)
- experienced plumbing service operators with responsibility for project design and supervision (Air conditioning and mechanical services stream)
- plumbers who manage a plumbing business (Plumbing and services – Management stream)
- specialist plumbing services tradespersons and operators seeking to deepen their technical skills (Plumbing and services – Operations stream)
- specialist hydraulic consultants (Hydraulic services design stream).

Occupational titles may include:

- Plumbing contractor
- Fire services supervisor
- Air conditioning technician
- Specialist hydraulic designer.

The qualification has core and elective unit of competency requirements that cover common skills for the plumbing industry, as well as the four specialist streams and a range of elective options.

The plumbing industry strongly affirms that training and assessment leading to recognition of skills must be undertaken in a real or very closely simulated workplace environment and this qualification requires all units of competency to be delivered in this context.

Completion of the general induction training program specified by the National Code of Practice for Induction Training for Construction Work (ASCC 2007) is required before entering a construction work site. Achievement of unit CPCCOHS1001A covers this requirement.

Pathways Information

No applicable.

Licensing/Regulatory Information

This is a licensed occupation. Check with relevant state and territory licensing and regulatory authorities. State and territory jurisdictions may have different regulatory requirements.

Entry Requirements

See Packaging rules for entry requirements related to various streams.

Employability Skills Summary

Employability skill	Industry/enterprise requirements for this qualification include:
Communication	<ul style="list-style-type: none">• Interprets a range of complex documents, including relevant regulatory, legislative, licensing and registration requirements; codes and standards; drawings and specifications; industry definitions and terminology; contracts; plans and diagrams; job specifications; manufacturer specifications and technical manuals; design specifications; and industrial relations policies• Understands industry terminology• Communicates effectively with a range of relevant parties through a range of media• Prepares a range of documents, including reports, file notes, drawings and sketches, building applications and submissions; compressed air system specifications; testing and commissioning schedules; and operation and maintenance manuals• Uses active listening skills to seek clarification where needed• Facilitates site meetings• Negotiates conflict and dispute resolution
Teamwork	<ul style="list-style-type: none">• Seeks expert advice where appropriate• Supervises others' work and monitors work processes• Plans and sequences work in conjunctions with others• Participates in professional networks and associations
Problem solving	<ul style="list-style-type: none">• Performs various calculations and measurements relating to comparisons of alternative water management systems; waste management minimisation strategies; and materials and designs for compressed air systems• Identifies and rectifies faults• Deals with contract variations• Coordinates a range of team members and activities• Reviews design solutions for effectiveness and compliance• Deals with customer complaints and disputes
Initiative and enterprise	<ul style="list-style-type: none">• Identifies building sites from location drawings• Identifies typical faults and problems and takes necessary remedial action• Uses creative design and drafting skills• Identifies opportunities for improved water management

- Evaluates effective strategies for insulating structures
 - Designs compressed air systems
 - Develops waste management strategies and dispute resolution procedures
- Planning and organising**
- Gathers required tools and equipment
 - Ensures coordinated development of drawings
 - Supervises various administrative and work processes, including claims and payments, insurance coverage, payroll systems and tax systems
 - Arranges resources and prepares for the building or construction project
 - Plans and arranges building applications and approvals
 - Ensures current building codes and standards are applied
 - Plans and sets out work
 - Plans waste management strategies
 - Scopes extent of work required and plans and details relevant systems and layouts
- Self management**
- Manages own performance to ensure required levels of service standards, work quality and professional competence, and compliance with relevant codes and standards
 - Manages work priorities and professional development
 - Maintains required standard of personal fitness, hygiene and grooming
 - Uses feedback to improve own performance
- Learning**
- Uses appropriate mechanisms to inform others of applicable standards and codes
 - Applies training agreement provisions
- Technology**
- Uses information technology skills to operate office equipment and computers
 - Uses digital cameras
 - Uses CAD software to produce and manage architectural drawing and template files
 - Uses relevant hydraulic design systems software
 - Commissions fire alarm and detection systems and gas appliances
 - Checks relevant tools and equipment for serviceability
 - Understands basic electrical theory and the types,

- characteristics, uses and limitations of electrical/electronic componentry and control systems
- Designs compressed air systems using computer software

Packaging Rules

Fire services stream

To achieve this qualification, the candidate must demonstrate competency in:

- 15 units of competency:
 - 8 core units
 - 7 elective units.

The units must be completed as follows:

- all four common core units
- all four core units shared between air conditioning and mechanical services stream and fire services
- seven elective units, ensuring that any licensing requirements are addressed.

Of these seven electives:

- at least four units must be selected from the pool of elective units in the fire services stream
- up to two units may be selected from a Certificate IV qualification in another endorsed Training Package or from the core or elective units of another stream within the Certificate IV in Plumbing and Services, ensuring both the integrity of the AQF alignment and the industry context of the qualification are maintained
- one unit may be selected from Certificate III or Diploma Plumbing and Services qualifications
- no more than three units may be selected from the common pool of elective units.

Air conditioning and mechanical services stream

To achieve this qualification, the candidate must demonstrate competency in:

- 15 units of competency:
 - 8 core units
 - 7 elective units.

The units must be completed as follows:

- all four common core units
- all four core units shared between air conditioning and mechanical services stream and fire services

- seven elective units, ensuring that any licensing requirements are addressed.

Of these seven electives:

- at least four units must be selected from the pool of elective units in the air conditioning and mechanical services stream
- up to two of the seven units may be selected from a Certificate IV qualification in another endorsed Training Package or from the core or elective units of another stream within the Certificate IV in Plumbing and Services, ensuring both the integrity of the AQF alignment and the industry context of the qualification are maintained
- one of the seven units may be drawn from Certificate III or Diploma Plumbing and Services qualifications
- no more than three units may be selected from the common pool of elective units.

Plumbing and services – Management stream

Industry considers it appropriate for people seeking to complete Certificate IV in Plumbing and Services – Management stream to hold a relevant Certificate III qualification in the industry.

To achieve this qualification, the candidate must demonstrate competency in:

- 15 units of competency:
 - 10 core units
 - 5 elective units.

The units must be completed as follows:

- all four common core units
- all six core units (Plumbing and services – Management stream)
- five elective units, ensuring that any licensing requirements are addressed.

Of these five electives:

- up to five units may be selected from the pool of elective units in the Plumbing and services – Management stream
- two of the five units may be selected from a Certificate IV qualification in another endorsed Training Package or from the core or elective units of another stream within the Certificate IV in Plumbing and Services, ensuring both the integrity of the AQF alignment and the industry context of the qualification are maintained
- one of the five units may be drawn from Certificate III or Diploma Plumbing and Services qualifications
- no more than three units may be selected from the pool of elective units common to all streams.

Plumbing and services – Operations stream

This stream has an entry requirement of the completion of a relevant trade qualification or equivalent.

To achieve this qualification, the candidate must demonstrate competency in:

- 15 units of competency:
 - 12 core units
 - 3 elective units.

The units must be completed as follows:

- all four common core units
- all eight core units (Plumbing and services – Operations stream)
- three elective units, ensuring that any licensing requirements are addressed.

Of these three electives:

- up to three units may be selected from the pool of elective units in the Plumbing and services – Operations stream
- two of the three units may be selected from a Certificate IV qualification in another endorsed Training Package or from the core or elective units of another stream within the Certificate IV in Plumbing and Services, ensuring both the integrity of the AQF alignment and the industry context of the qualification are maintained
- one of the three units may be drawn from Certificate III or Diploma Plumbing and Services qualifications
- no more than three units may be selected from the pool of elective units common to all streams.

Hydraulic services design stream

To achieve this qualification, the candidate must demonstrate competency in:

- 15 units of competency:
 - 10 core units
 - 5 elective units.

The units must be completed as follows:

- all four common core units
- all six core units in the hydraulic services design stream
- five elective units.

Of these five electives:

- at least two units must be selected from the pool of elective units in the hydraulic services design stream
- one of the five units may be selected from a Certificate IV qualification in another endorsed Training Package, ensuring both the integrity of the AQF alignment and the industry context of the qualification are maintained
- one of the five units may be drawn from the Diploma of Hydraulic Services Design qualification
- no more than three units may be selected from the common pool of elective units.

Some units in this qualification may have prerequisite requirements, which must be met when packaging the qualification. Users are referred to the list of CPC08 units with

prerequisite unit requirements available in this Training Package for this purpose.

Core units

Common

BSBOHS403B	Identify hazards and assess OHS risks
CPCBC4012B	Read and interpret plans and specifications
CPCPCM4011A	Carry out work-based risk control processes
CPCPCM4012A	Estimate and cost work

Fire services, air conditioning and mechanical services streams

BSBCUS301B	Deliver and monitor a service to customers
CPCCB4015A	Prepare specifications for all construction works
CPCPCM4013A	Produce 2-D architectural drawings using CAD software
CPCPCM4014A	Prepare simple sketches and drawings

Plumbing and services – Management stream

BSBCUS301B	Deliver and monitor a service to customers
BSBSMB401A	Establish legal and risk management requirements of small business
BSBSMB402A	Plan small business finances
BSBSMB404A	Undertake small business planning
BSBSMB405B	Monitor and manage small business operations
CPCCB4034A	Apply codes and standards to building trade and services contracting

Plumbing and services – Operations stream

BSBSMB401A	Establish legal and risk management requirements of small business
CPCPDR4011B	Design and size sanitary drainage systems
CPCPDR4012B	Design and size stormwater drainage systems
CPCPDR4013B	Design and size domestic treatment plant disposal systems
CPCPGS4011C	Design and size consumer gas installations
CPCPRF4011B	Design and size roof drainage systems
CPCPSN4011B	Design and size sanitary plumbing systems
CPCPWT4011B	Design and size heated and cold water services and systems

Plumbing and services – Hydraulic services design stream

CPCBC4034A	Apply codes and standards to building trade and services contracting
CPCPDR4011B	Design and size sanitary drainage systems
CPCPDR4012B	Design and size stormwater drainage systems
CPCPDR4013B	Design and size domestic treatment plant disposal systems
CPCPSN4011B	Design and size sanitary plumbing systems
CPCPWT4011B	Design and size heated and cold water services and systems

Elective units*All streams*

BSBINN301	Promote innovation in a team environment
BSBITU201	Produce simple word processed documents
BSBITU202	Create and use spreadsheets
BSBITU301	Create and use databases
BSBLED401	Develop teams and individuals
BSBMGT403	Implement continuous improvement
BSBPMG404A	Apply quality management techniques
BSBWRT401	Write complex documents
CPCCBC4002A	Manage occupational health and safety in the building and construction workplace
CPCCBC4024A	Resolve business disputes
CPCCBC4025A	Manage personal work priorities and professional development
CPCSUS4001A	Implement and monitor environmentally sustainable work practices
HLTHIR403C	Work effectively with culturally diverse clients and co-workers

Fire services stream

BSBLDR403	Lead team effectiveness
BSBPMG407A	Apply risk management techniques
BSBPMG522	Undertake project work
BSBSMB401	Establish legal and risk management requirements of small business
BSBSMB402	Plan small business finances
BSBSMB404	Undertake small business planning
BSBSMB405	Monitor and manage small business operations
BSBSMB406	Manage small business finances
BSBLDR402	Lead effective workplace relationships
CPCCBC4008B	Conduct on-site supervision of building and construction projects
CPCCBC4017A	Arrange resources and prepare for the building or construction project
CPCCBC4026A	Arrange building applications and approvals
CPCCBC4034A	Apply codes and standards to building trade and services contracting
CPCPFS4021A	Commission domestic and residential fire suppression sprinkler systems
CPCPFS4022A	Commission and maintain special hazard fire suppression systems
CPCPFS4023A	Commission fire system pumpsets
CPCPFS4024A	Design residential and domestic fire sprinkler systems
CPCPFS4025A	Commission fire alarm and detection system interface devices
CPCPFS4026A	Commission firefighting appliances
CPCPFS4027A	Commission fire sprinkler systems
TAEDEL402	Plan, organise and facilitate learning in the workplace

Air conditioning and mechanical services stream

BSBPMG407A	Apply risk management techniques
BSBPMG522	Undertake project work
BSBSMB407	Manage a small team
BSBSMB401	Establish legal and risk management requirements of small business
BSBSMB402	Plan small business finances
BSBSMB404	Undertake small business planning
BSBSMB405	Monitor and manage small business operations
BSBSMB406	Manage small business finances
BSBLDR402	Lead effective workplace relationships
CPCCCBC4008B	Conduct on-site supervision of building and construction projects
CPCCCBC4017A	Arrange resources and prepare for the building or construction project
CPCCCBC4019A	Apply sustainable building design principles to water management systems
CPCCCBC4020A	Build thermally efficient and sustainable structures
CPCCCBC4021A	Minimise waste on the building and construction site
CPCCCBC4026A	Arrange building applications and approvals
CPCCCBC4034A	Apply codes and standards to building trade and services contracting
CPCPGS4011C	Design and size consumer gas installations
CPCPGS4022A	Service Type A gas appliances
CPCPGS4023B	Install, commission and service Type B gas appliances
CPCPMS4011B	Design, size and lay out heating and cooling systems
CPCPMS4022A	Commission air and water systems
CPCPMS4023A	Design compressed air systems

CPCPWT4011B	Design and size heated and cold water services and systems
CPCPWT4022A	Commission and maintain backflow prevention devices
CPCPWT4023A	Commission and maintain hot and heated water temperature control devices
TAEDEL402	Plan, organise and facilitate learning in the workplace

Plumbing and services – Management stream

BSBPMG407A	Apply risk management techniques
BSBPMG522	Undertake project work
BSBSMB407	Manage a small team
BSBLDR402	Lead effective workplace relationships
CPCCCBC4008B	Conduct on-site supervision of building and construction projects
CPCCCBC4009B	Apply legal requirements to building and construction projects
CPCCCBC4017A	Arrange resources and prepare for the building or construction project
CPCCCBC4019A	Apply sustainable building design principles to water management systems
CPCCCBC4020A	Build thermally efficient and sustainable structures
CPCCCBC4021A	Minimise waste on the building and construction site
CPCCCBC4026A	Arrange building applications and approvals
CPCPCM4013A	Produce 2-D architectural drawings using CAD software
CPCPCM4014A	Prepare simple sketches and drawings
CPCPDR4011B	Design and size sanitary drainage systems
CPCPDR4012B	Design and size stormwater drainage systems
CPCPDR4013B	Design and size domestic treatment plant disposal systems
CPCPFS4024A	Design residential and domestic fire sprinkler systems

CPCPGS4011C	Design and size consumer gas installations
CPCPGS4022A	Service Type A gas appliances
CPCPGS4023B	Install, commission and service Type B gas appliances
CPCPMS4011B	Design, size and lay out heating and cooling systems
CPCPMS4022A	Commission air and water systems
CPCPRF4011B	Design and size roof drainage systems
CPCPSN4011B	Design and size sanitary plumbing systems
CPCPWT4011B	Design and size heated and cold water services and systems
CPCPWT4022A	Commission and maintain backflow prevention devices
CPCPWT4023A	Commission and maintain hot and heated water temperature control devices
TAEDEL402	Plan, organise and facilitate learning in the workplace

Plumbing and services – Operations stream

BSBCUS301	Deliver and monitor a service to customers
CPCCBBC4019A	Apply sustainable building design principles to water management systems
CPCCBBC4020A	Build thermally efficient and sustainable structures
CPCCBBC4021A	Minimise waste on the building and construction site
CPCCBBC4034A	Apply codes and standards to building trade and services contracting
CPCPFS4024A	Design residential and domestic fire sprinkler systems
CPCPGS4022A	Service Type A gas appliances
CPCPGS4023B	Install, commission and service Type B gas appliances
CPCPMS4011B	Design, size and lay out heating and cooling systems
CPCPMS4022A	Commission air and water systems
CPCPMS4023A	Design compressed air systems
CPCPWT4022A	Commission and maintain backflow prevention devices
CPCPWT4023A	Commission and maintain hot and heated water temperature control devices

Plumbing and services – Hydraulic services design stream

BSBPMG407A	Apply risk management techniques
BSBPMG522	Undertake project work
BSBSMB407	Manage a small team
BSBLDR402	Lead effective workplace relationships
CPCPCM4013A	Produce 2-D architectural drawings using CAD software
CPCPCM4014A	Prepare simple sketches and drawings
CPCPFS4024A	Design residential and domestic fire sprinkler systems
CPCPGS4011C	Design and size consumer gas installations
TAEDEL402	Plan, organise and facilitate learning in the workplace

Custom Content Section

Not applicable.