



Australian Government

Department of Education, Employment and Workplace Relations

CPC40911 Certificate IV in Plumbing and Services

Release: 1

CPC40911 Certificate IV in Plumbing and Services

Modification History

Not Applicable

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

Not Applicable

Licensing/Regulatory Information

Not Applicable

Entry Requirements

Not Applicable

Employability Skills Summary

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

Employability skill

Industry/enterprise requirements for this qualification include:

Communication

- 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; manufacturers' 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

- 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

- 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

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

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|---------------------------|--|
| 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• Develops waste management strategies• Designs compressed air systems• Develops waste management strategies and dispute resolution procedures |
| Planning and organising | <ul style="list-style-type: none">• Gathers required tools and equipment• Ensures a 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 | <ul style="list-style-type: none">• 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 | <ul style="list-style-type: none">• Uses appropriate mechanisms to inform others of applicable standards and codes• Applies training agreement provisions |
| Technology | <ul style="list-style-type: none">• Uses information technology skills to operate office equipment and computers |

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

- 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

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 is 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 is 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 is 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 is 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 is 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.

Core units*Common*

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| CPCBC4012A | Read and interpret plans and specifications |
| CPCPCM4001A | Carry out work based risk control processes |
| CPCPCM4002A | Estimate and cost work |
| BSBOHS403B | Identify hazards and assess OHS risks |

Fire services, air conditioning and mechanical services streams

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| CPCPCM4004A | Prepare simple sketches and drawings |
| CPCBC4015A | Prepare specifications for all construction works |
| CPCPCM4003A | Produce 2-D architectural drawings using CAD software |
| BSBCUS301A | Deliver and monitor a service to customers |

Plumbing and services - Management stream

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| CPCBC4034A | Apply codes and standards to building trade and services contracting |
| BSBCUS301A | 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 |
| BSBSMB405A | Monitor and manage small business operations |

Plumbing and services - Operations stream

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|-------------|---|
| CPCPDR4011A | Design and size sanitary drainage systems |
| CPCPDR4012A | Design and size stormwater drainage systems |
| CPCPDR4013A | Design and size domestic treatment plant disposal systems |
| CPCPGS4011A | Design and size consumer gas installations |
| CPCPRF4011A | Design and size roof drainage systems |

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|-------------|--|
| CPCPSN4011A | Design and size sanitary plumbing systems |
| CPCPWT4011A | Design and size heated and cold water services and systems |
| BSBSMB401A | Establish legal and risk management requirements of small business |

Plumbing and services - Hydraulic services design stream

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|-------------|--|
| CPCCBC4034A | Apply codes and standards to building trade and services contracting |
| CPCPDR4011A | Design and size sanitary drainage systems |
| CPCPDR4012A | Design and size stormwater drainage systems |
| CPCPDR4013A | Design and size domestic treatment plant disposal systems |
| CPCPSN4011A | Design and size sanitary plumbing systems |
| CPCPWT4011A | Design and size heated and cold water services and systems |

Elective units

All streams

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|-------------|--|
| CPCCBC4002A | Manage occupational health and safety in the building and construction workplace |
| CPCCBC4024A | Resolve business disputes |
| CPCCBC4025A | Manage personal work priorities and professional development |
| BSBINN301A | Promote innovation in a team environment |
| BSBITU201A | Produce simple word processed documents |
| BSBITU202A | Create and use spreadsheets |
| BSBITU301A | Create and use databases |
| BSBLED401A | Develop teams and individuals |
| BSBMGT403A | Implement continuous improvement |
| BSBPMG404A | Apply quality management techniques |
| BSBWRT401A | Write complex documents |

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| CPCSUS4001A | Implement and monitor environmentally sustainable work practices |
| HLTHIR403B | Work effectively with culturally diverse clients and co-workers |

Fire services stream

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| 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 |
| CPCPFS4005A | Commission fire alarm and detection systems |
| CPCPFS4006A | Commission firefighting appliances |
| CPCPFS4011A | Commission domestic and residential fire suppression sprinkler systems |
| CPCPFS4012A | Commission and maintain special hazard fire suppression systems |
| CPCPFS4013A | Commission fire system pump sets |
| CPCPFS4014A | Design residential and domestic fire sprinkler systems |
| BSBWOR402A | Promote team effectiveness |
| BSBPMG407A | Apply risk management techniques |
| BSBPMG510A | Manage projects |
| BSBSMB401A | Establish legal and risk management requirements of small business |
| BSBSMB402A | Plan small business finances |
| BSBSMB404A | Undertake small business planning |
| BSBSMB405A | Monitor and manage small business operations |
| BSBSMB406A | Manage small business finances |
| BSBWOR401A | Establish effective workplace relationships |

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| TAEDEL402A | Plan, organise and facilitate learning in the workplace |
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Air conditioning and mechanical services stream

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| CPCCBC4008B | Conduct on-site supervision of building and construction projects |
| CPCCBC4017A | Arrange resources and prepare for the building or construction project |
| CPCCBC4019A | Apply sustainable building design principles to water management systems |
| CPCCBC4020A | Build thermally efficient and sustainable structures |
| CPCCBC4021A | Minimise waste on the building and construction site |
| CPCCBC4026A | Arrange building applications and approvals |
| CPCCBC4034A | Apply codes and standards to building trade and services contracting |
| CPCPGS4003A | Install commission and service Type B gas appliances |
| CPCPGS4011A | Design and size consumer gas installations |
| CPCPGS4012A | Service Type A gas appliances |
| CPCPMS4002A | Commission air and water systems |
| CPCPMS4003A | Design compressed air systems |
| CPCPMS4011A | Design, size and layout heating and cooling systems |
| CPCPWT4011A | Design and size heated and cold water services and systems |
| CPCPWT4012A | Commission and maintain backflow prevention devices |
| CPCPWT4013A | Commission and maintain heated water temperature control devices |
| BSBPMG407A | Apply risk management techniques |
| BSBPMG510A | Manage projects |
| BSBSMB407A | Manage a small team |
| BSBSMB401A | Establish legal and risk management requirements of small business |

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| BSBSMB402A | Plan small business finances |
| BSBSMB404A | Undertake small business planning |
| BSBSMB405A | Monitor and manage small business operations |
| BSBSMB406A | Manage small business finances |
| BSBWOR401A | Establish effective workplace relationships |
| TAEDEL402A | Plan, organise and facilitate learning in the workplace |

Plumbing and services - Management stream

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|--------------|--|
| 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 |
| CPCPCM4003A | Produce 2-D architectural drawings using CAD software |
| CPCPCM4004A | Prepare simple sketches and drawings |
| CPCPDR4011A | Design and size sanitary drainage systems |
| CPCPDR4012A | Design and size stormwater drainage systems |
| CPCPDR4013A | Design and size domestic treatment plant disposal systems |
| CPCPFS4014A | Design residential and domestic fire sprinkler systems |
| CPCPGS4003A | Install commission and service Type B gas appliances |
| CPCPGS4011A | Design and size consumer gas installations |
| CPCPGS4012A | Service Type A gas appliances |

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| CPCPMS4002A | Commission air and water systems |
| CPCPMS4011A | Design, size and layout heating and cooling systems |
| CPCPRF4011A | Design and size roof drainage systems |
| CPCPSN4011A | Design and size sanitary plumbing systems |
| CPCPWT4011A | Design and size heated and cold water services and systems |
| CPCPWT4012A | Commission and maintain backflow prevention devices |
| CPCPWT4013A | Commission and maintain heated water temperature control devices |
| BSBPMG407A | Apply risk management techniques |
| BSBPMG510A | Manage projects |
| BSBSMB407A | Manage a small team |
| BSBWOR401A | Establish effective workplace relationships |
| TAEDEL402A | Plan, organise and facilitate learning in the workplace |

Plumbing and services - Operations stream

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|--------------|--|
| 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 |
| CPCCCBC4034A | Apply codes and standards to building trade and services contracting |
| CPCPFS4014A | Design residential and domestic fire sprinkler systems |
| CPCPGS4003A | Install commission and service Type B gas appliances |
| CPCPGS4012A | Service Type A gas appliances |
| CPCPMS4002A | Commission air and water systems |
| CPCPMS4003A | Design compressed air systems |
| CPCPMS4011A | Design, size and layout heating and cooling systems |

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| CPCPWT4013A | Commission and maintain heated water temperature control devices |
| CPCPWT4012A | Commission and maintain backflow prevention devices |
| BSBCUS301A | Deliver and monitor a service to customers |

Plumbing and services - Hydraulic services design stream

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| BSBPMG407A | Apply risk management techniques |
| BSBPMG510A | Manage projects |
| BSBSMB407A | Manage a small team |
| BSBWOR401A | Establish effective workplace relationships |
| CPCPCM4003A | Produce 2-D architectural drawings using CAD software |
| CPCPCM4004A | Prepare simple sketches and drawings |
| CPCPFS4014A | Design residential and domestic fire sprinkler systems |
| CPCPGS4011A | Design and size consumer gas installations |
| TAEDEL402A | Plan, organise and facilitate learning in the workplace |