



SECURING SUSTAINABLE LIVELIHOODS
through appropriate technology

Centre for Appropriate Technology Inc. - RTO: 0857



**Centre for
Appropriate
Technology Inc.**

Course Guide

TECHNICAL SKILLS GROUP





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WHAT IS CAT TECHNICAL SKILLS GROUP?

People in Australia sometimes talk about the importance of 'bush skills'. To us at the Centre for Appropriate Technology (CAT), these are fundamental to people being able to live successfully in remote communities.

The approach that CAT takes is to ensure that training takes into account the aspirations and demands upon Indigenous learners as they develop their skills for a particular reason. Over 1000 learners have studied at CAT. They have sought to build their practical knowledge and confidence in technical subjects, whether to prepare them for vocational learning or to contribute to the immediate needs of their community.

As CAT has developed, so its understanding of technology became more sophisticated. Appropriate technology is the range of skills, techniques and knowledge that come together to meet a particular social, economic, environmental or cultural need. These needs are not met by technology alone. Achieving a reliable and sustainable system takes much more than the hardware. Users need to be confident maintainers of the equipment and they need to know where to go for technical support. Also, they have to be able to use energy in a way that supports a better way of life.

So, looking beyond hardware to consider people's aspirations, CAT became involved in training programs for people from the communities in Central Australia covering vocational skills in carpentry, metal-working, welding, concrete-laying and automotive maintenance. Learners who come to CAT are achieving qualifications in their chosen field.

CAT is a **Registered Training Organisation** with Certificate courses in Automotive, Applied Design and Technology, Civil Construction and Training and Assessment. Other non-accredited training can be negotiated dependent on needs of communities.

The Technical Skills Group monitors development in training needs and opportunities and has partnerships with Government and non-Government agencies to find training solutions for Aboriginal and Torres Strait Islander communities, organisations and people. We have partnerships with **Employment Agencies, Aboriginal Organisations and Councils, Central Land Council, remote area Community Councils, CDEP providers, and Youth Services.**

CAT learners come to training from a variety of backgrounds. Urban learners are often referred from other agencies and organisations like Job Network Providers, Schools, Aboriginal Councils, family members or through word of mouth.

The courses are **hands on, practical and skills based** which give students opportunities to explore **pathways to employment, apprenticeships** or further training. CAT also has links with **Enterprise Development Agencies** that can assist with business information.

Support for learning is available from the **People and Community Services team**. This might include bus pick-up, mentoring, and for remote students accommodation and travel assistance if they have to come to town for training.



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OUR GOALS

- Train and develop Indigenous learners with skills to help them:
 - gain employment
 - look after their community
 - develop some useful life skills
 - maintain a sustainable livelihood
- Develop Indigenous training staff to provide:
 - professional
 - nationally accredited
 - culturally appropriate training services
- Provide a training environment for learners which:
 - is friendly
 - encourages learning
 - provides an enjoyable learning experience

Remote Learner Groups

CAT also delivers training in remote communities. Communities are encouraged to identify projects as a basis for training.

Who approaches CAT for training?

- Individual Indigenous and non-Indigenous learners
- Community Councils
- Community Elders
- CDEPs
- Job Networks
- Indigenous Resource Centres
- Indigenous Enterprises
- Indigenous Corporations
- Land Councils

Most training is available **free of fees** under funding agreements with both Territory and Federal Government grants.

Contact the People and Community Services team to discuss your particular circumstances!

People and Community Services Officer:

Phone: 89514359 or
Wayne.davis@icat.org.au

People and Community Services Coordinator:

Phone: 89514351 or
Val.dearman@icat.org.au



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GENERAL INFORMATION

**TRAINING IS DELIVERED AT THE CAT COMPLEX AT 32 PRIEST ST, ALICE SPRINGS
OR
AT LOCATIONS IN COMMUNITIES ACROSS CENTRAL AUSTRALIA**

**TRAINING IN OTHER LOCATIONS CAN BE NEGOTIATED DEPENDING ON COMMUNITY NEED
AND AVAILABILITY OF TRAINERS**

CAT training is designed around community projects and needs.

Specific projects may require a short course consisting of some Units of Competency from the certificate courses. In this case, learners will be recognised with a **Certificate of Attainment** for the Units of Competency they have successfully completed.

We welcome partnerships with other community building and development projects.

The Technical Skills Group monitors development in training needs and opportunities and has partnerships with Government and non-Government agencies to find training solutions for Aboriginal and Torres Strait Islander communities, organisations and people

People and Community Services

Provides support for students for things like transport, accommodation, childcare, transport and Abstudy

Staff will help by networking with non-Aboriginal organisations like Centrelink as well as Aboriginal organisations.

Assistance is available also for personal issues or difficulties with studies.

Centrelink - Abstudy, Youth Allowance

People and Communities Services will support learners who may need assistance in applying for Abstudy and/or Centrelink Allowance.

Part time learners may apply for Abstudy grants to cover costs of materials and books.

Transport (Bus Run)

CAT picks up learners who have no transport. Learners are picked up in the morning between 8 and 8.30 am and dropped off in the afternoon.

Alcohol and other Drugs

- **C.A.T.** is a **GROG FREE ZONE**
- Alcohol and drugs are not permitted on these premises.
- Any learner under the influence of alcohol or other drugs will be asked to leave.



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RPL and Credit Transfer

CAT recognises that some Learners may already have good technical and other skills and therefore may not have to re-learn something you already know. If this is the case, speak to your trainer about applying for RPL. You can also apply for a Credit Transfer if you have completed all or part of a similar course.

Mutual Recognition

CAT recognises the AQF Qualifications and Statements of Attainment issued by any other Registered Training Organisation.

Enrolment

If you are interested in training please contact our **People and Community Services Officer**. He will assist you with the enrolment process and give you further information about the qualification of your choice.

Or download an Expression of Interest Form from our website:

www.icat.org.au/training

and send it via

Fax: 8951 4334
Email: training@icat.org.au

Or Phone the People and Community Services Team

Phone: 8951 4359 (PACS Officer)
89514351 (PACS Coordinator)
89514356 (PACS Reception)

THANK YOU FOR CONSIDERING CAT FOR YOUR TRAINING NEEDS



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URBAN TRAINING CALENDAR 2008

ALL CLASSES HELD AT THE CAT CAMPUS, 32 PRIEST ST, ALICE SPRINGS

Refer to Course descriptions for more detailed information on courses. All courses run Monday to Thursday from 9.00 am to 2.30 pm with a half hour lunch break.

Automotive I

This course is an introduction to vehicle and mechanical servicing.

Duration:

Start dates: (0113.006) 4th February
(0113.007) 24th March

Automotive II

Learning the basics in the area of automotive maintenance.

Duration:

Start date:
(0323.008) 21st April to 5th September

Both Automotive Certificates give learners opportunities for apprenticeships and/or further training

ATWork II

To develop a range of skills for supporting community projects and house maintenance It provides a pathway into other training in trades and apprenticeships.

Duration:

Start dates:
(614.02) 4th February to 28th August.
(0xxx.19) 18th of April. (only learners who previously completed ATWork I)

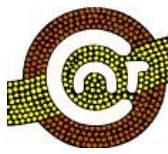
As part of the ATWork programme customized short courses are available in plumbing, building, welding, car servicing, computing and property maintenance throughout the year. Please contact our People and Community Services Coordinator. (8951 4351)

ATWork I

To develop practical skills, and confidence to support remote community projects and activities The units of competency delivered are also core units in ATWork II

Duration:

Start date:
(0225.001) 4th February to 18th April.



Introduction into Welding:

The units of competency delivered will be based around practical projects (eg. Build a BBQ)

- UBO003 Prepare for using metal welding-cutting equipment & consumables (15 hrs)
- MEM5.12AB Perform routine manual arc welding (20 hrs)

Duration:

Start dates:

(0035.003)	25 th February
(0035.010)	25 th March,
(0035.011)	14 th April,
(0035.012)	12 th May,
(0035.013)	2 nd June)

Introduction to Business Equipment and Computing:

- BSBCMN105A Use business equipment (15 hrs)
- MEM2.9C10A Perform computer operations (15 hrs)

Duration:

Start dates:

(0030.004)	4 th February
(0030.015)	3rd March,
(0030.016)	31 st April,
(0030.018)	12 th May
(0030.017)	10th June

Service your Car:

These units of competency are part of both ATWork and Automotive Certificates and can be offered as customised short courses.

- AURT201170A Inspect & service engines (20 Hrs)
- AURT200108A Carry out servicing operations (20 hrs)

Duration:

Start date:

(0030.005)	10 th March
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Certificate IV in Training and Assessment

3 one week blocks of classroom study plus assignments in own time.

Duration:

Start date:

(0275.009)	Block 1	31 st March
	Block 2	28 th April
	Block 3	26 th May

COURSES ON OFFER AT CAT

ATWORK (Aboriginal Technical Skills Worker)

Certificate I in Applied Design and Technology

National Qualification Code: 70115NT
Length of Qualification: 225 hrs

What is this qualification about?

To develop practical skills, and confidence to support remote community projects and activities

Core Units

- UBO001 Introduction to applied design and technology (20 hrs)
- UBO002 Carry out fastening & fixing of basic hardware items (20 hrs)
- UBO003 Prepare for using metal welding-cutting equipment & consumables (15 hrs)
- BCGCM1001B Follow OH&S policies and procedures (40 hrs)
- BCGCM1003B Plan and organise work (20 hrs)
- BCGCM1004B Conduct workplace communication (20 hrs)
- BCGCM1005B Carry out measurements and calculations (20 hrs)
- BCGCM2005B Use construction tools and equipment (70 hrs)

Skills achieved in this qualification:

- an understanding of the basics for practical work;
- developed skills in preparation for community repairs and maintenance tasks;
- a basic knowledge of the work needed to look after remote communities (water, waste, shelter/environment, transport and communication).

Opportunities:

The Certificate I in Applied Design and Technology is the foundation course for the ATWORK program and not intended for direct entry into employment. The following provides examples of community tasks / activities that people finishing this course could do:

- CDEP routine maintenance tasks and basic community projects;
- Community building and other infrastructure development projects;
- General maintenance of outstations, school grounds, council grounds etc;
- Entry into Certificate II in Applied Design and Technology.

Certificate II in Applied Design and Technology

National Qualification Code: 70118NT
Length of Qualification: 614 hrs

What is this qualification about?

To develop a range of skills for supporting community projects and house maintenance

Core Units

- UBO001 Introduction to applied design and technology (20 hrs)
- UBO003 Prepare for using metal welding-cutting equipment & consumables (15 hrs)
- UGP001 Work within the key areas of Indigenous community technical services (10 hrs)
- UGP002 Identify the impact of technology transfer in an Australian Indigenous community (10 hrs)
- BCGCM1001B Follow OH&S policies and procedures (40hrs)
- BCGCM1003B Plan and organise work (20 hrs)
- BCGCM1004B Conduct workplace communication (20 hrs)
- BCGCM1005B Carry out measurements and calculations (20 hrs)
- BCGCM2001B Read and interpret plans and specifications (36 hrs)
- BCGCM2005B Use construction tools and equipment (70 hrs)
- BCGCM2006B Apply basic levelling procedures (8 hrs)
- MEM5.12AB Perform routine manual arc welding (20 hrs)
- HLTPOP14A Provide basic repairs and maintenance to health hardware fixtures (30 hrs)
- BCPDR2001A Locate and clear blockages (8 hrs)
- AURT201170A Inspect & service engines (20 Hrs)
- AURT200108A Carry out servicing operations (20 hrs)

Elective

- BSBCMN103A Apply basic communication skills (40 hrs)
- BSBCMN105A Use business equipment (15 hrs)
- MEM2.9C10A Perform computer operations (15 hrs)
- BCGCM2002B Carry out excavation (16 hrs)
- BCGCO2003B Carry out concreting to simple forms (16 hrs)
- BCGCM2004B Handle construction materials (16 hrs)
- BCGCM2009B Carry out basic demolition (32 hrs)
- BCGPD2003B Remove and replace doors and door and window furniture (4 hrs)
- BCCCM2007B Spread and compact materials manually (12 hrs)
- BCCRC2001B Repair potholes (36 hrs)
- HLTPOP13A Support community processes for the provision of ongoing repairs & maintenance to health & hardware (20 hrs)
- BCPCM2010A Mark out materials (20 hrs)



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Skills achieved in this qualification:

- a basic understanding of using practical skills
- developed the skills to prepare for community repairs and maintenance tasks;
- a basic knowledge of the work needed to look after remote communities (water, waste, shelter/environment, transport and communication).

Opportunities:

The Certificate II in Applied Design and Technology is the foundation course for the ATWORK program and for entry into employment. However, the following provides examples of community tasks / activities that people finishing this course might work in:

- CDEP routine maintenance tasks and basic community projects;
- community building and other infrastructure development projects;
- general maintenance of outstations, school grounds, council grounds etc;

Units from Certificate III in Applied Design and Technology

National Qualification Code: 70123NT

Length of Qualification: 60 hrs

These units are available for specific project design

- UBP002 Develop and realise the design (30 hrs)
- UBP003 Present design concept (30 hrs)

AUTOMOTIVE

Certificate I in Automotive

National Qualification Code: **AUR10105**
Length of Qualification: 113 hrs

What is this qualification about?

An introduction to the Automotive/Mechanical Industry and to become familiar with the basics in the area of vehicle maintenance.

Core Units

- AURC172003A Identify environmental regulations and best practices in a workplace or business (20 Hrs)
- AURC270103A Apply safe working practices (20 hrs)
- AURP245465A Remove, fit and adjust line trimming system components (8 hrs)
- AURT100064A Remove and tag engine system components (15 hrs)
- AURT100308A Carry out workshop practice activities (10 hrs)
- AURT200108A Carry out servicing operations (20 hrs)
- AURT270278A Use and maintain workplace tooling and equipment (20 hrs)

Skills achieved in this qualification:

You will gain skills in using a range of tools & equipment to do maintenance and services on engines and vehicles. The qualification is hands on and practical.

Opportunities:

After completion of Certificate I learners may continue their studies and complete Certificate II in Automotive or pursue some of the other Qualifications offered at CAT.

Completion of Certificate I and Certificate II could lead to employment in the automotive industry. These Certificates are required to be completed for Automotive Traineeships.

Certificate II in Automotive (Vehicle Servicing)

National Qualification Code: **AUR20505**
Length of Qualification: **323 hrs**

What is this qualification about?

A more advanced level of competency of the basics in the area of automotive maintenance.

Core Units

- AURC270103A Apply safe working practices (20 hrs)
- AURC270421A Establish relations with customers (20 hrs)
- AURE218676A Test, service and charge batteries (15 hrs)
- AURE218708A Carry out repairs to single electrical circuits (40 hrs)
- AURP245465A Remove, fit & adjust line trimming system components (8 hrs)
- AURT200108A Carry out servicing operations (20 hrs)
- AURT201170A Inspect and service engines (20 hrs)
- AURT202170A Inspect and service cooling systems (10 hrs)
- AURT203170A Service petrol fuel systems (15 hrs)
- AURT206670A Inspect and service transmissions (manual) (10 hrs)
- AURT207170A Inspect and service transmissions (automatic) (10 hrs)
- AURT210170A Inspect and service braking systems (20 hrs)
- AURT212670A Service final drive assemblies (5 hrs)
- AURT213170A Service final drive (driveline) (5 hrs)
- AURT215170A Inspect and service steering systems (10 hrs)
- AURT216170A Inspect and service suspension systems (10 hrs)
- AURT237271A Service and repair trailers (15 hrs)
- AURT270278A Use and maintain workplace tooling & equipment (20 hrs)
- AURT271781A Implement and monitor environmental regulations in the automotive mechanical industry (20 hrs)
- AURT306170A Inspect, service and/or repair clutch assemblies and associated operating system components (30 hrs)

Skills achieved in this qualification:

You will gain skills in using a range of tools & equipment to do maintenance and services on engines and vehicles. The qualification is hands on and practical.

Opportunities:

Completion of Certificate I and Certificate II could lead to employment in the automotive industry. These Certificates are required to be completed for Automotive Traineeships.

CIVIL CONSTRUCTION

Certificate II in Civil Construction

National Qualification Code: BCC20103

Length of Qualification: 490 hrs

What is this qualification about?

The opportunity to learn the basic skills required to work in the Civil Construction Industry.

Core Units

- BCCCM1001B Follow OH&S policies and procedures (40 hrs)
- BCCCM1002B Conduct workplace communications (20 hrs)
- BCCCM1003B Plan and organise work (20 hrs)
- BCCCM1004B Carry out measurements and calculations (20 hrs)
- BCCCM1005B Handle construction materials and safely dispose of non-toxic materials (16 hrs)
- BCCCM2001B Use civil construction hand and power tools (80 hrs)
- BCCCM2002B Use small plant and equipment (16 hrs)
- BCCCM2003B Read and interpret plans and specifications (40 hrs)
- BCCCM2004B Drain and dewater site (12 hrs)
- BCCCM2005B Carry out manual excavation (8 hrs)
- BCCCM2007B Spread and compact material manually (12 hrs)
- BCCCM2008B Carry out basic levelling (8 hrs)
- BCCCM2012B Carry out concrete work (40 hrs)
- BCCCM2013B Control traffic with stop-slow bat (4 hrs)
- BCCCM2014B Identify, locate and protect underground services (30 hrs)

Elective

- BCCCM2010B Install trench support (8 hrs)
- BCCCM2011B Erect and dismantle temporary fencing and gates (40 hrs)
- BCCRC2001B Repair potholes (36 hrs)
- BCCRC2008B Lay pipes (40 hrs)

Skills achieved in this qualification:

You will be developing skills in using a range of hand and power tools also skills involved in levelling sites, taking correct measurements and making calculations as well as handling, storage and disposal of construction materials and waste. Occupational health and safety policies and workplace procedures will be covered as well as personal and tool safety. You will also be developing skills to read and interpret plans and how to organise your work tasks more efficiently and effectively.

Opportunities:

The Certificate II in Civil Construction gives you the opportunity to learn the basic skills required to work in the Civil Construction Industry. Learners can move directly into Certificate III in Civil Construction (Plant Operations) and can help pursue an apprenticeship or traineeship in the construction industry.

Certificate III in Civil Construction (Plant Operations)

National Qualification Code: BCC30603
Length of Qualification: 1094 hrs

What is this qualification about?

To obtain this qualification, the following must be achieved:

All fifteen (15) core units of competency, four (4) elective units of competency from Certificate II & III and one (1) unit of competency from Group A and two (2) units of competency from Group B. (22 Units of Competency in total)

Core Units

- BCCCM1001B Follow OH&S policies and procedures (40 hrs)
- BCCCM1002B Conduct workplace communications (20 hrs)
- BCCCM1003B Plan and organise work (20 hrs)
- BCCCM1004B Carry out measurements and calculations (20 hrs)
- BCCCM1005B Handle construction materials and safely dispose of non-toxic materials (16 hrs)
- BCCCM2001B Use civil construction hand and power tools (80 hrs)
- BCCCM2002B Use small plant and equipment (16 hrs)
- BCCCM2003B Read and interpret plans and specifications (40 hrs)
- BCCCM2004B Drain and dewater site (12 hrs)
- BCCCM2005B Carry out manual excavation (8 hrs)
- BCCCM2006B Support plant operations (8 hrs)
- BCCCM2007B Spread and compact material manually (12 hrs)
- BCCCM2008B Carry out basic levelling (8 hrs)
- BCCCM2012B Carry out concrete work (40 hrs)
- BCCCM2013B Control traffic with stop-slow bat (4 hrs)
- BCCCM2014B Identify, locate and protect underground services (30 hrs)

Elective

- BCCCM2010B Install trench support (8 hrs)
- BCCCM2011B Erect and dismantle temporary fencing and gates (40 hrs)
- BCCCM3005B Carry out site based risk control processes (16 hrs)
- BCCPO3020B Load and unload plant (20 hrs)
- BCCRC2001B Repair potholes (36 hrs)
- BCCRC2008B Lay pipes (40 hrs)

Group A

- BCCPO3001B Conduct backhoe/loader operations (200 hrs)
- BCCPO3002B Conduct dozer operations (240 hrs)
- BCCPO3003B Conduct excavator operations (200 hrs)
- BCCPO3004B Conduct wheeled front end loader operations (160 hrs)
- BCCPO3005B Conduct tracked front end loader operations (80 hrs)
- BCCPO3006B Conduct grader operations (240 hrs)
- BCCPO3007B Conduct scraper operations (160 hrs)
- BCCPO3008B Conduct skid steer loader operations (80 hrs)



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Group B

- BCCPO3011B Conduct tractor operations (60 hrs)
- BCCPO3012B Conduct tip truck operations (60 hrs)
- BCCPO3013B Conduct roller operations (80 hrs)
- BCCPO3014B Conduct water cart operations (40 hrs)
- BCCPO3016B Conduct dump truck operations (60 hrs)
- BCCPO3017B Conduct self propelled compactor operations (40 hrs)

Skills achieved in this qualification:

Skills in the use of different plant and equipment, including grader, dozer, scraper, truck and tractor use. Occupational health and safety policies and workplace procedures will be covered as well as personal and tool safety.

Opportunities:

The Certificate III in Civil Construction (Plant Operations) gives you the opportunity to learn skills required to work in the Civil Construction Industry. People can move into Certificate III in Civil Construction (Plant Operations) and can help pursue an apprenticeship or traineeship in the civil construction or mining industry.



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TRAINING QUALIFICATIONS

Certificate IV in Training and Assessment

National Qualification Code: TAA40104
Length of Qualification: 275 hrs

What is this qualification about?

The Certificate IV in Training and Assessment is for learners whose role is delivering training in a workplace environment.

Core Units

- TAAENV401A Work effectively in vocational education and training (10 hrs)
- TAAENV402A Foster and promote an inclusive learning culture (10 hrs)
- TAAENV403A Ensure a healthy and safe learning environment (10 hrs)
- TAADES401A Using training packages to meet client needs (20 hrs)
- TAADES402A Design and develop learning programs (40 hrs)
- TAADEL403A Facilitate individual learning (15hrs)
- TAADEL401A Plan and organise group-based delivery (20 hrs)
- TAADEL404A Facilitate work-based learning (15 hrs)
- TAAASS401A Plan and organise assessment (10 hrs)
- TAAASS402A Assess competence (15 hrs)
- TAAASS403A Develop assessment tools (30 hrs)
- TAAASS404A Participate in assessment validation (20 hrs)

Elective

- TAADEL301A Provide training through instruction & demonstration of work skills (40 hrs)
- TAADEL402A Facilitate Group Based Learning (20 hrs)

Skills achieved in this qualification:

This qualification will develop your skills in planning, delivering and evaluating small group or one-to-one training sessions in your workplace. You will gain an understanding of the needs to adult learners and an idea of the key principles in teaching adults. You will be asked to plan, prepare, deliver and evaluate short training sessions that cover both learning practical skills and learning theoretical knowledge. The content of the training you deliver should be an area in which you have expertise.⁹