



Australian Government

AHCPER421 Select appropriate technology for a permaculture system

Release: 1

AHCPER421 Select appropriate technology for a permaculture system

Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 9.0.

Application

This unit of competency describes the skills and knowledge required to identify permaculture needs, investigate options and select technology solutions that are small-scale, promote autonomy and are sustainable for a permaculture system within a geographic area.

The unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify appropriate technology for permaculture systems	1.1 Review and confirm design needs and requirements for potential applications of appropriate technology with client 1.2 Identify sources and locations of information on appropriate technology according to design needs 1.3 Determine required scale of appropriate technology

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Identify permaculture principles and practices relevant to appropriate technology
2. Investigate appropriate technology for permaculture systems	2.1 Investigate potential appropriate technology options for permaculture project needs 2.2 Determine unique characteristics of different appropriate technology options 2.3 Investigate applications of alternative technologies 2.4 Investigate requirements for integrating new technology with existing permaculture systems 2.5 Determine capital cost of installation 2.6 Determine training and maintenance required for operation of different options
3. Evaluate appropriate technology for permaculture systems	3.1 Evaluate potential for integrating new appropriate technologies in permaculture system design 3.2 Compare potential alternative technologies against cost and efficiency criteria 3.3 Evaluate risks and obstacles of potential appropriate technology options
4. Select appropriate technology for permaculture systems	4.1 Select suitable appropriate technology for design use 4.2 Determine availability of appropriate technology 4.3 Confirm cost and mode of delivery
5. Document appropriate technology for permaculture systems	5.1 Compile investigations and selection process of appropriate technology 5.2 Document justification for selected appropriate technology, and secure client approval 5.3 Amend permaculture design plan for selected appropriate technology option

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCPER421 Select appropriate technology for a permaculture system	AHCPER405 Select appropriate technology for a permaculture system	Minor changes to Application, Elements and Performance Criteria for clarity Changes to Performance Evidence, Knowledge Evidence and Assessment Conditions for clarity	Equivalent

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPER421 Select appropriate technology for a permaculture system

Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 9.0.

Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has, on at least one occasion, selected appropriate technology for inclusion in permaculture system design and has:

- identified and confirmed permaculture system requirements for appropriate technology with client
- investigated appropriate technology options for permaculture system requirements
- evaluated appropriate technology options most suited to permaculture system design
- documented and confirmed selection of appropriate technology option with client
- amended permaculture design with appropriate technology option.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- permaculture principles and ethics
- definition of appropriate technologies and common considerations, including:
 - energy technologies
 - alternative and resource conserving technologies
 - building technologies
 - tools and implements employed in gardening and farming operations
 - lifestyle choices and behavioural adjustments to conserve energy and resources to meet sustainability objectives
 - smaller scale and low-cost solutions to everyday activities
- ingenuity applied to complex problems to develop simple solutions
- criteria for determining appropriateness of energy and resource conservation technologies
- principles of passive solar design, embodied energy and carbon emission reduction
- role of innovations in appropriate technologies

- role of appropriate technology in energy descent planning and greenhouse gas emission reduction
- types of appropriate technology systems commonly available and applied to the design of energy and resource conscious houses, farms, offices and community projects
- the benefits from combining a number of different appropriate technologies and the limitations of each different technology
- design of systems integrating appropriate technologies.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated for a permaculture system design or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - reference material for technologies
- specifications:
 - workplace policies, procedures, processes
 - client brief
- relationships:
 - client.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>