



Australian Government

Department of Education, Employment and Workplace Relations

CPPCMN4012A Contribute to sustainable solutions throughout a building's life cycle

Release: 1

CPPCMN4012A Contribute to sustainable solutions throughout a building's life cycle

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit of competency specifies the outcomes required to participate in the implementation throughout a building's life cycle of policies and practices that are environmentally responsible and resource efficient.

It covers the skills and knowledge necessary to research and implement policies and practices that address factors, including the use of non-toxic materials, enhancement of internal environmental quality, reduction of waste, efficient use of resources, and inclusion of alternative and renewable energy solutions.

Sustainable practices also relate to the retrofitting of 'green' solutions and the maintenance of buildings.

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

Application of the Unit

Application of the unit

This unit of competency supports individuals responsible for contributing to the implementation of sustainable solutions.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units Nil

Employability Skills Information

Employability skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

- | | |
|--|---|
| <p>1. Develop understanding of environmental impact over a building's life.</p> | <p>1.1 Purpose, benefits and practices of identifying and addressing <i>environmental impact</i> of a building during its life cycle are explored and used to inform the provision of services to customers.</p> <p>1.2 Concepts and models of the <i>environmental life cycle of buildings</i> are explored and used to inform the provision of services to customers.</p> <p>1.3 <i>Range of products and services</i> offered to support the sustainable and effective management of a building over its life cycle are reviewed and assessed.</p> |
| <p>2. Identify and communicate effective environmental solutions.</p> | <p>2.1 Benefits of adopting strategies that contribute to reducing environmental impact over the building's life cycle are analysed and communicated to customers.</p> <p>2.2 Current products and services offered by the business are reviewed and analysed to identify their benefits and contribution to reducing environmental impacts.</p> <p>2.3 Advice is sought from team members or related external professionals when services sought by the customer extend beyond current offerings.</p> |
| <p>3. Support implementation of effective environmental solutions.</p> | <p>3.1 Information and advice are provided to customer regarding optimal use and maintenance of the product or service to ensure environmental benefits are maximised.</p> <p>3.2 Services provided by the business are checked for compliance with legislation and industry best practice to ensure optimum environmental performance.</p> <p>3.3 Documentation, including 'green' certification and environmental performance ratings, is provided to the customer and its purpose explained.</p> |

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- analytical skills to:
 - apply suitable sustainable practices

REQUIRED SKILLS AND KNOWLEDGE

- analyse risks
- problem-solving skills to identify appropriate sustainable solutions for the customer
- research skills to identify sustainable products, services and trends in sustainability and the environmental impact of buildings
- technical skills relevant to job role
- technology skills to use computer applications
- written and oral communication skills to:
 - communicate clearly and concisely verbally and in writing
 - consult with individuals and work team
 - read and interpret documentation

Required knowledge

- advanced understanding of the principles and practices of sustainability within the construction and property services industries
- concepts and models for building life cycle management
- concepts of risk management planning and processes
- environmental and resource hazards
- industry codes and standards, including Building Code of Australia (BCA)
- industry quality requirements
- organisational policies and procedures related to sustainable practices
- strategies, tools and products to support sustainable practices
- techniques and models for research
- legislative and regulatory requirements relating to environmental standards and OHS

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment This unit of competency could be assessed by observing at least two instances of the implementation and monitoring of integrated economic, social and environmental sustainability policies and procedures in an organisation.

Critical aspects for assessment and evidence required to demonstrate competency in this unit A person who demonstrates competency in this unit must be able to provide evidence of the required skills and knowledge specified in this unit.

In particular the person should demonstrate the ability to:

- identify and communicate the environmental impact of a building over its life cycle, from construction to demolition
- identify the products and services that support improved sustainability
- communicate with customers effectively and develop environmentally effective solutions.

Context of and specific resources for assessment Assessment of essential underpinning knowledge may be conducted in an off-site context. It is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include access to:

- relevant legislation, standards and guidelines
- workplace documentation and personnel
- reports from other parties involved in the process of identifying and implementing improvements.

Method of assessment Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Property Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

This unit could be assessed on its own or in combination with

other units relevant to the job function.

Guidance information for assessment

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Range Statement**RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. 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) may also be included.

Environmental impact of a building can be reduced by strategies, including:

- efficient use of energy
- efficient use of resources required for construction and maintenance
- elimination or minimisation of hazardous and toxic materials
- minimisation of water use
- reduced use of non-renewable resources
- re-use and recycling of materials
- use of solar or other alternative forms of energy
- waste reduction.

Environmental life cycle of buildings refers to the impacts of:

- extraction and processing of the raw materials used in construction and the energy intensity used
- construction of the building, including:
 - design to minimise reliance on energy-intensive heating, cooling and lighting
 - efficient use of materials
 - installation of alternative energy sources
 - minimisation of waste
 - use of non-toxic materials
 - use of recycled materials
- maintenance of the building, including:

- use of non-toxic cleaning and maintenance materials
 - efficient energy and water use
 - recycling and materials re-use
 - efficient waste recycling
 - demolition of the building, including:
 - efficient and safe disposal of materials
 - recycling of building materials.
 - building design services
 - cleaning operations services
 - construction services
 - facilities management services
 - supply of energy-efficient building systems
 - waste management services.
- Range of products and services*** is diverse, will typically be provided by a range of companies, and may include:

Unit Sector(s)

Unit sector Common

Competency field

Competency field