Australian Government

UEENEEE080A Apply industry and community standards to engineering activities

Release: 3

INDUSTRY SKILLS COUNCILS
Creating Australia's Future

UEENEEE080A Apply industry and community standards to engineering activities

Modification History

Not Applicable

Unit Descriptor

Unit Descriptor **1)**

1.1) Descriptor

This unit covers the industry and community standards expected of engineers. It encompasses knowledge and application of ethical and community standards, seeking advise regarding broader implications of engineering works, adopting appropriates technologies and engaging in current engineering issues.

Application of the Unit

Application of the Unit **4)**

This unit is intended for competency development entry-level employment based programs incorporated in approved contracts of training. It is intended to apply to any formal recognition for this standard at the aligned AQF 6 level or higher.

Licensing/Regulatory Information

1.2) License to practice

The skills and knowledge described in this unit do not requires a license to practice in the workplace. However other conditions may apply in some jurisdictions subject to regulations related to electrical work. Practice in the workplace and during training is also subject to regulations directly related to occupational health and safety and where applicable contracts of training such as cadetships.

Pre-Requisites

Prerequisite Unit(s) **2)**

2.1) Competencies

Granting competency in this unit shall be made only after competency in the following unit(s) has/have been confirmed.

UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

Employability Skills Information

Employability Skills **3)**

This unit contains Employability Skills

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this unit of competency is packaged will assist in identifying Employability Skill requirements.

Elements and Performance Criteria Pre-Content

6) Elements describe the essential outcomes of a unit of competency	Performance criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT		PERFORMANCE CRITERIA	
1	Review ethical and community standards and processes	1.1	Ethical standards of relevant professional bodies are reviewed and understood.
		1.2	Advice on the application processes for applying ethical, community and technical standards is obtained from persons of higher authority.
		1.3	Contributions to periodic revision of standards is made through formal discussions with colleagues and written submissions to public reviews.
2	Apply ethical and community standards and processes	2.1	Established ethical standards are apply to all professional dealings and activities.
		2.2	Work is planed and managed within the framework of community and technical standards.
		2.3	Compliance with relevant community and technical standards is incorporated in assuring quality of work

ELEMENT	PERFORMANCE CRITERIA
	outcomes.
	2.4 Advice on engineering issues and adoption of particular technologies with regard to standards is sought from persons of higher authority.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

7) This describes the essential skills and knowledge and their level, required for this unit.

Evidence shall show that knowledge has been acquired of industry and community standards expected of engineers.

All knowledge and skills detailed in this unit should be contextualised to current industry practices and technologies.

KS01-EE080A Ethical standards and their application

Evidence shall show an understanding of ethical standards and their application to an extent indicated by the following aspects:

T1 Purpose of ethical standards.

T2 The common tenets of ethical standards.

T3 Ethical standards of professional bodies in the electrotechnology industry

T4 Application of ethical standards

KS02-EE080A Development of community standards

Evidence shall show an understanding of the development of community standards to an extent indicated by the following aspects:

T1 Purpose of standards and how they are applied

T2 Difference between 'standards', 'codes of practice' and 'guidelines'

T3 Legal implications of 'standards', 'codes of practice' and 'guidelines'

T4 Standards development organisations and compliance systems

T5 Standards development process and community involvement.

Evidence Guide

EVIDENCE GUIDE

9) The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

The Evidence Guide forms an integral part of this unit. It must be used in conjunction with all parts of the unit and performed in accordance with the Assessment Guidelines of this

EVIDENCE GUIDE

Training Package.

Overview of Assessment

9.1)

Longitudinal competency development approaches to assessment, such as Profiling, require data to be reliably gathered in a form that can be consistently interpreted over time. This approach is best utilised in Apprenticeship programs and reduces assessment intervention. It is the industry-preferred model for apprenticeships. However, where summative (or final) assessment is used it is to include the application of the competency in the normal work environment or, at a minimum, the application of the competency in a realistically simulated work environment. It is recognised that, in some circumstances, assessment in part or full can occur outside the workplace. However, it must be in accordance with industry and regulatory policy.

Methods chosen for a particular assessment will be influenced by various factors. These include the extent of the assessment, the most effective locations for the assessment activities to take place, access to physical resources, additional safety measures that may be required and the critical nature of the competencies being assessed.

The critical safety nature of working with electricity, electrical equipment, gas or any other hazardous substance/material carries risk in deeming a person competent. Sources of evidence need to be 'rich' in nature to minimise error in judgment.

Activities associated with normal everyday work have a bearing on the decision as to how much and how detailed the data gathered will contribute to its 'richness'. Some skills are more critical to safety and operational requirements while the same skills may be more or less frequently practised. These points are raised for the assessors to consider when choosing an assessment method and developing assessment instruments. Sample assessment instruments are included for Assessors in the Assessment Guidelines of this Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

9.2)

Before the critical aspects of evidence are considered all prerequisites must be met.

Evidence for competence in this unit shall be considered holistically. Each element and associated performance criteria shall be demonstrated on at least two occasions in accordance with the 'Assessment Guidelines - UEE07'. Evidence shall also comprise:

- A representative body of performance criteria demonstrated within the timeframes typically expected of the discipline, work

EVIDENCE GUIDE

function and industrial environment. In particular this shall incorporate evidence that shows a candidate is able to:

- Implement Occupational Health and Safety workplace procedures and practices, including the use of risk control measures as specified in the performance criteria and range statement
- Apply sustainable energy principles and practices as specified in the performance criteria and range statement
- Demonstrate an understanding of the essential knowledge and associated skills as described in this unit. It may be required by some jurisdictions that RTOs provide a percentile graded result for the purpose of regulatory or licensing requirements.
- Demonstrate an appropriate level of skills enabling employment
- Conduct work observing the relevant Anti Discrimination legislation, regulations, polices and workplace procedures

- Demonstrated consistent performance across a representative range of contexts from the prescribed items below:
  - as described in 8) and including:

A Reviewing and understanding ethical standards

B Seeking advice on applying standards

C Contributing to periodic review of standards

D Working ethically

E Ensuring work outcomes are compliant with relevant standards

F Seeking advice on engineering issues and adoption of particular technologies with regard to standards

EVIDENCE GUIDE

Context of and specific resources for assessment

9.3)

This unit should be assessed as it relates to normal work practice using procedures, information and resources typical of a workplace. This should include:

- OHS policy and work procedures and instructions.
- Suitable work environment, facilities, equipment and materials to undertake actual work as prescribed in this unit.

These should be used in the formal learning/assessment environment.

Note:

Where simulation is considered a suitable strategy for assessment, conditions for assessment must be authentic and as far as possible reproduce and replicate the workplace and be consistent with the approved industry simulation policy.

The resources used for assessment should reflect current industry practices in relation to industry and community standards expected of engineers.

Method of assessment

9.4)

This unit shall be assessed by methods given in Volume 1, Part 3 'Assessment Guidelines'.

Note:
Competent performance with inherent safe working practices is expected in the Industry to which this unit applies. This requires that the specified essential knowledge and associated skills are assessed in a structured environment which is primarily intended for learning/assessment and incorporates all necessary equipment and facilities for learners to develop and demonstrate the essential knowledge and skills described in this unit.

Concurrent assessment and relationship with other units

9.5)

For optimisation of training and assessment effort, competency development in this unit may be arranged concurrently with other core units an AQF 6 qualification or higher. Examples are:

UEENEEG069B Manage electrical projects

UEENEEG070B Plan electrical projects

Range Statement

RANGE STATEMENT

8) This relates to the unit as a whole providing the range of contexts and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

This unit shall be demonstrated in relation to a qualification at AQF 6 level or higher

Generic terms used throughout this Vocational Standard shall be regarded as part of the Range Statement in which competency is demonstrated. The definition of these and other terms that apply are given in Volume 2, Part 2.1.

Unit Sector(s)

Not Applicable

Competency Field

2.2) Literacy and numeracy skills

Participants are best equipped to achieve competency in this unit if they have reading, writing and numeracy skills indicated by the following scales. Description of each scale is given in Volume 2, Part 3 'Literacy and Numeracy'

Reading	5	Writing	5	Numeracy	5

Custom Content Section

Competency Field **5**)

Electrotechnology