



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **UEENEEH160A Plan large electronic projects**

**Release: 1**

## UEENEEH160A Plan large electronic projects

### Modification History

Not applicable.

### Unit Descriptor

#### Unit Descriptor

#### 1) Scope:

##### 1.1) Descriptor

This unit covers development and documentation of large electronics project proposals, milestones and completions. The unit encompasses, establishing budgets, critical path analysis, development of workflow strategies, documenting, presenting and negotiating budgets and timelines.

### Application of the Unit

#### Application of the Unit 2)

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

### Licensing/Regulatory Information

#### License to practice 3)

The skills and knowledge described in this unit do not require a license to practice in the workplace. However, practice in this unit is subject to regulations directly related to occupational health and safety and where applicable contracts of training such as apprenticeships.

## Pre-Requisites

**Prerequisite Unit(s)** 4)

**Competencies** 4.1)

There are no prerequisite competencies for this unit.

**Literacy and numeracy skills** 4.2)

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 3      Writing 3      Numeracy 3

## Employability Skills Information

**Employability Skills** 5)

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 competency standard unit

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 Prepare to plan project.          | 1.1 OHS processes and procedures for a given work area are identified, obtained and understood.                                                                     |
|                                     | 1.2 Established techniques for project planning are reviewed and adopted in accordance with organisation's policies.                                                |
|                                     | 1.3 The extent of the project is established from design brief, specification and/or other relevant documentation and from discussions with appropriate person(s).  |
| 2 Develop project plan proposal.    | 2.1 Estimated plant, material, labour and other costs are sought and obtained from appropriate person(s) in accordance with organisation's policies and procedures. |
|                                     | 2.2 Project budget is established from estimated plant, material, labour and other costs in accordance with organisation's policies and procedures.                 |
|                                     | 2.3 Knowledge of critical path analysis is applied to developing workflow strategies.                                                                               |
|                                     | 2.4 Sources and availability of materials and human resources needed for the project are established in accordance with organisation's policies and procedures.     |
|                                     | 2.5 Risk management strategies are sought and obtained for incorporating in the project plan.                                                                       |
|                                     | 2.6 Project plan is reviewed against all inputs and adjusted to rectify any anomalies.                                                                              |
|                                     | 2.7 Project plan proposal is documented in accordance with organisation's policies and procedures.                                                                  |
| 3 Obtain approval for project plan. | 3.1 Project plan is presented and discussed with person(s) of higher authority.                                                                                     |
|                                     | 3.2 Alterations to the project plan resulting from the presentation/discussion are negotiated with                                                                  |

**ELEMENT****PERFORMANCE CRITERIA**

person(s) of higher authority within the constraints of organisation policy.

- 3.3 Final project plan is documented and approval obtained from appropriate person(s).

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

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

Evidence shall show that knowledge has been acquired of safe working practices and planning electronic projects.

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

#### **KS01-EH160A**

#### **Large Electronic Project Planning**

Evidence shall show an understanding of project planning to an extent indicated by the following aspects:

##### 2.2.16.1

- T1. Purpose of project planning
- T2. Documents needed to plan a project
- T3. Factors influencing sequence and restraints of project activities
- T4. Critical path analysis encompassing:
  - Graphical representation methods
  - Methods of representing time/rates

##### 2.2.18

Evidence shall show an understanding of customer/client relations to an extent indicated by the following aspects:

- T1. Purpose of critical path analysis
- T2. Essential data
- T3. Relational sequence of work activities
- T4. Graphical representation methods
- T5. Methods of representing time/rates
- T6. Monitoring methods

##### 2.2.29

Evidence shall show an understanding of electronic industry sector customs and practices to an extent indicated by the following aspects:

- T1. Technical aspects of project planning and management encompassing:
  - Method of ensuring equipment meets specified performance requirements
  - Performance/cost benefit analysis
  - Equipment procurement
- T2. b) Typical approaches to planning and management

## REQUIRED SKILLS AND KNOWLEDGE

- T3. c) Successful planning techniques
- T4. d) Best practice management methods and styles

### 2.18.8.2

Evidence shall show an understanding of OHS enterprise responsibilities to an extent indicated by the following aspects:

- T1. Provisions of relevant health and safety legislation
- T2. Principles and practice of effective occupational health and safety management
- T3. Management arrangements relating to regulatory compliance
- T4. Enterprise hazards and risks, control measures and relevant expertise required
- T5. Characteristics and composition of workforce and their impact on occupational health and safety management
- T6. Relevance of enterprise management systems to occupational health and safety management
- T7. Analysis of working environment and design of appropriate occupational health and safety management systems
- T8. Analysis of relevant data and evaluation of occupational health and safety system effectiveness
- a. T9 Assess resources to establish and maintain occupational health and safety management systems.

## 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 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 must 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 accord 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 influence decisions about how/how much 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 shall 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 – UEE11'. Evidence shall also comprise:

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

work 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, policies and workplace procedures
- Demonstrated consistent performance across a representative range of contexts from the prescribed items below:
  - Plan electronic projects as described in 8) and including:

- |   |                                                                                                                                                                                |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A | Determining the project requirements accurately.                                                                                                                               |
| B | Establishing a project budget.                                                                                                                                                 |
| C | Developing effective work flow strategies.                                                                                                                                     |
| D | Documenting project plan proposal.                                                                                                                                             |
| E | Negotiating alterations to the proposed project plan successfully.                                                                                                             |
| F | Obtaining approval of the final plan.                                                                                                                                          |
| G | Dealing with unplanned events by drawing on essential knowledge and skills to provide appropriate solutions incorporated in a holistic assessment with the above listed items. |

Note:

Successful completion of relevant vendor training may be used to contribute to evidence on which competency is deemed. In these cases the alignment of outcomes vendor training with performance criteria and critical aspects of evidence shall be clearly identified.

**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 by this unit.

These should be part of the formal learning/assessment environment.

Note:

Where simulation is considered a suitable strategy for assessment, conditions 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 planning electronic projects.

The resources used for assessment should reflect current industry practices in relation to planning electronic projects.

**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)**

There are no concurrent assessment recommendations for this unit.

**Range Statement****RANGE STATEMENT**

**10)** 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 using a representative electronic project, by planning an industry accepted medium sized electronic project with the following attributes:

- budgets
- critical path analysis
- workflow strategies development
- budgets and timelines negotiation
- plan presentation
- documentation

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****Competency Field**      **11)**

Electronics

