

Training Package	Electrotechnology (UEE07)		HSC Requirements and Advice
Unit title	Use drawings, diagrams, schedules and manuals		HSC Indicative Hours
Unit code	UEENEE007B	Competency field	Electrotechnology
			25

Unit descriptor	This unit covers the use of drawings, diagrams, equipment and cable schedules and manuals as they apply to the various electrotechnology work functions. It encompasses the rudiments for communicating with schematic, wiring and mechanical diagrams and equipment and cable/connection schedules, manuals, site and architectural drawings and plans showing the location of services, apparatus, plant and machinery.
Application of the unit	This unit is intended for competency development entry-level employment based programs incorporated in approved contracts of training.
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 Skills requirements.
Prerequisite unit(s)	Competencies There are no prerequisite competencies for this unit.
	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 <i>Appendix 1</i> of this Syllabus. Reading 3 Writing 3 Numeracy 3
Licence to practise	The skills and knowledge described in this unit do not require a licence to practise 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.

Required Skills and Knowledge
<p>This describes the essential skills and knowledge and their level required for this unit.</p> <p>Evidence shall show that knowledge has been acquired of safe working practices and using drawings, diagrams, schedules and manuals.</p> <p>All knowledge and skills detailed in this unit should be contextualised to current industry practices and technologies.</p> <p>The extent of the essential knowledge and associated skills (EKAS) required is given in <i>Appendix 2</i> of this Syllabus. It forms an integral part of this unit.</p> <p>2.5.1.2 Drawings and diagrams</p> <p>2.18.1 Occupational Health and Safety principles.</p>

Evidence Guide

This provides essential advice for assessment of the unit. It must be read in conjunction with the Performance Criteria and the Range Statement of the unit and the Training Package Assessment Guidelines. All Knowledge and skills detailed in this unit should be contextualised to current industry practices and technologies.

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	Critical aspects of evidence required to demonstrate competency in this unit
<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>	<p>Before the critical aspects of evidence are considered all prerequisites must be met.</p> <p>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:</p> <ul style="list-style-type: none"> • a representative body of performance criteria 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: <ul style="list-style-type: none"> - 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: - use drawings, diagrams, schedules and manuals as described in the Range Statement and including: <ul style="list-style-type: none"> ▪ identifying drawings, diagrams, schedules and manuals relevant to the work to be undertaken ▪ interpreting drawings, diagrams, schedules and manuals correctly ▪ using correct conventions in freehand drawings ▪ giving correct information in freehand drawings ▪ dealing with unplanned events and drawing on essential knowledge and skills to provide appropriate solutions incorporated in a holistic assessment with the above listed items.

Evidence Guide cont/d

Context of and specific resources for assessment	Method of assessment	Concurrent assessment and relationship with other units
<p>This unit should be assessed as it relates to normal work practice using procedures, information and resources typical of a workplace.</p> <p>This should include:</p> <ul style="list-style-type: none"> • OHS policy and work procedures and instructions • suitable work environment, facilities, equipment and materials to undertake actual work as prescribed in this unit. <p>These should be used in the formal learning/assessment environment.</p> <p>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.</p> <p>The resources used for assessment should reflect current industry practices in relation to using drawings, diagrams, schedules and manuals.</p>	<p>This unit shall be assessed by methods given in <i>Appendix 3</i> of this Syllabus.</p> <p>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.</p>	<p>For optimisation of training and assessment effort, competency development in this unit may be arranged concurrently with units covering the use of drawings, diagrams, schedules or manuals is required.</p>

Element	Performance Criteria	Range Statement
1 Prepare to use drawings, diagrams, schedules and manuals	1.1 Established OHS risk control measures and procedures are followed.	<p>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.</p> <p>This unit shall be demonstrated in relation to assembly, installation, fault finding, maintenance or development work functions in any of the following disciplines:</p> <ul style="list-style-type: none"> • appliances • business equipment • computers • data communications • electrical • electrical machines • electronics • fire protection • instrumentation • refrigeration and air-conditioning • renewable/sustainable energy, and • security technology. <p>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 <i>Appendix 4</i> of this Syllabus.</p>
	1.2 The need for drawings, diagrams, schedules or manuals is determined from the nature of the work to be undertaken.	
	1.3 Established routines and procedures are followed to obtain drawings, diagrams, schedules or manuals required for the work to be undertaken.	
2 Use drawings, diagrams, schedules and manuals to obtain job information	2.1 Drawings, diagrams, schedules and/or manuals are selected appropriate to the work being undertaken.	
	2.2 Drawings, diagrams and schedules are interpreted using knowledge of drawing layouts, conventions and symbols.	
	2.3 Dimensions are extracted from drawings and diagrams for application to work undertaken.	
	2.4 Location of equipment is determined from equipment schedules and location diagrams.	
	2.5 Manuals are reviewed to ascertain their format and where information relevant to the work to be undertaken is located.	
	2.6 Information given in manuals is interpreted in relation to the work to be undertaken.	
3 Use drawings, diagrams, schedules and manuals to convey information and ideas	3.1 Drawing conventions are used in neat freehand drawings to convey information and ideas to others involved in the work to be undertaken.	
	3.2 Drawing conventions are used to neatly correct freehand original job drawing to show final 'as-installed' arrangement.	
	3.3 Corrected drawings are forwarded to appropriate person(s) in accordance with established procedures.	