



Australian Government

UEENED130A Select, install, configure and test multimedia components

Release: 2

UEENEED130A Select, install, configure and test multimedia components

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

1) Scope:

1.1) Descriptor

This unit covers assembly, setting-up and testing multimedia computer systems as directed in computer service manuals and device/driver documentation. It encompasses safe working practices, and selecting, installing, configuring and testing multimedia computer system components, applications, and driver software, following written and oral instruction and applying customer relations' procedures.

Note:

This unit applies to all aspects of Electrotechnology – engineering applications only. For general competencies related to Information Technologies refer to the latest endorsed IT Training Package.

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. It may be used to augment formally-acquired competencies.

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)

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

UEENEED1 Assemble, set-up and test personal
02A computer hardware

UEENEEE1 Apply Occupational Health Safety
01A regulations, codes and practices in the
workplace

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)

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 Select and prepare to install multimedia components.	1.1 OHS procedures for a given work area are identified, obtained and understood through established routines and procedures. 1.2 Established OHS risk control measures and procedures in relation to computer and keyboard use are followed. 1.3 Advice is sought from the work supervisor to ensure the work is co-ordinated effectively with others. 1.4 Multimedia components, drivers, and application software are obtained in accordance with established routines and checked as meeting requirements. 1.5 Multimedia devices, drivers, and application software are correctly selected given user requirements and manufacturer specifications.

ELEMENT	PERFORMANCE CRITERIA
2 Install multimedia components.	2.1 Established OHS risk control measures and procedures for carrying out the work are followed. 2.2 Multimedia components are assembled and connected in accordance with manufacturer instructions. 2.3 Multimedia devices, drivers, and application software are correctly selected given user requirements and manufacturer specifications. 2.4 Multimedia devices are correctly installed and where not hot pluggable, computer is switched on and start-up procedures are followed and checked. 2.5 Multimedia devices, operating system, application programs, and multimedia devices are to be checked to be opening and operating correctly. 2.6 Multimedia devices and drivers are tested to be working correctly and benchmarked against similar devices for performance comparisons. 2.7 Faults are identified as being the result of either faulty hardware or software. 2.8 Faults are rectified in accordance with computer hardware, operating system and application instructions in strict accordance with OHS requirements. 2.9 Procedures for referring non-routine events to immediate supervisor for directions are followed. 2.10 Computer shutdown procedures are followed and computer switched off. 2.11 Work is carried out efficiently without waste of materials or damage to apparatus, circuits, the surrounding environment or services and using sustainable energy principles.

ELEMENT	PERFORMANCE CRITERIA
3 Complete work and report.	3.1 OHS risk control work completion measures and procedures are followed.
	3.2 Work area is cleaned and made safe in accordance with established procedures.
	3.3 Work supervisor is notified of the completion of the work in accordance with established procedures.

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 selecting, installing, configuring and testing multimedia devices.

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

KS01-ED130A Multimedia computer components

Evidence shall show an understanding of computer multimedia subsystem components to an extent indicated by the following aspects:

T1 Multimedia subsystems

Note:

Examples include new multimedia standards, pixel resolution, scanning, resolution, output resolution, printer resolution, microprocessor speeds, INTEL INCOMP Index rating, cache memory speeds, system bus transfer speeds, configure a mother board, trouble shoot a mother board

T2 Multimedia storage devices

Note:

Examples include USB/flash, hard disk drive, multimedia storage devices, removable storage hard disk drive, CD-ROM/DVD drive, digital tape (DAT) drive

T3 Video cards, types and specifications

Note:

Examples include video processor, graphic processing, video RAM, bus interferences, resolution, full motion video, still image, driver software and updates

T4 Sound cards and sound card standards

Note:

Examples include MIDI interface, sound card applications, sound card connectors, FM synthesis, wave table, sound card file formats

T5 CD-ROM's, CD-ROM/DVD standards

Note:

Examples include CD-ROM/DVD cache memory, CD-compatible, CD/DVD drive transfer speeds, CD-ROM/DVD interfaces, photo CD/DVD compatible, CD/DVD recordable, multi-session compatible.

T6 Colour printers

Note:

REQUIRED SKILLS AND KNOWLEDGE

Examples include types of colour printers, construction and operation, dot matrix, ink-jet, laser, dye sublimation.

T7 Colour scanners

Note:

Examples include types of scanners, construction and operation, drivers and scanning software.

Evidence Guide

EVIDENCE GUIDE

9) This provides essential advice for assessment of the unit and must be read in conjunction with the performance criteria and the range statement of the unit and the Training Package Assessment Guidelines.

The Evidence Guide forms an integral part of this unit. It must be used in conjunction with all parts of this 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 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 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:
 - Select, install, configure and test multimedia devices as described in 8) and including:

- A Connecting computer, components and peripherals in accordance with requirements
- B Assembling on three separate occasions multimedia computer devices
- C Setting up on three separate occasions multimedia computer devices
- D Testing on three separate occasions multimedia computer devices
- E Documenting and reporting multimedia computer device activities and results.
- F 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.

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 selecting, installing, configuring and testing multimedia devices.

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 assessment 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 in relation to assembling, setting-up, and testing multimedia computer systems as directed in computer service manuals and device/driver documentation. It is to include demonstrated competence across assembly, setting-up and testing multimedia computer devices on three occasions respectively, using computer service manuals and device/driver 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)
	Computer Systems