Australian Government

UEENEED155A Develop and validate biometric equipment/systems installation

Release: 2

UEENEED155A Develop and validate biometric equipment/systems installation

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor	**1) Scope:**
	1.1) Descriptor
	This unit covers the development of biometric equipment/system installation, instructions and validating requirements of biometric systems. It encompasses working safely, understanding operating parameters and capabilities, following instructions and while documenting outcomes.

Application of the Unit

Application of the Unit	**2)**
	This unit applies to any recognised development program that leads to the acquisition of a formal award at AQF level 5 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)**	
		Granting competency in this unit shall be made only after competency in the following unit(s) has/have been confirmed.
	UEENEED102 A	Assemble, set up and test computing devices
	UEENEED146 A	Set up and configure basic local area network (LAN)
	UEENEED153 A	Set up and test biometric devices
	UEENEED154 A	Analyse and implement biometric techniques and applications
	UEENEEE101 A	Apply Occupational Health Safety 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 5 Writing 5 Numeracy 5

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

| **Employability Skills** | **5)** |
| | |

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 develop and validate biometric equipment/systems installation and related instructions and validation	1.1	OHS processes and procedures for a given work area are identified, obtained and understood.
		1.2	Established OHS risk control measures and procedures are followed in preparation for the work.
		1.3	Consideration is given to technical factors that will have an impact on the system installation in criminal, civil, and commercial settings.
		1.4	The extent of the biometric database is identified and evaluated, including factors affecting the integration and application of proprietary or open source packages.
		1.5	Evaluate for documenting the existing and planned technical and environmental requirements, including the enterprise.
		1.6	Work team/group is arranged of appropriately competent persons in accordance with skills required to meet work outcomes and organisation's established procedures.

ELEMENT		PERFORMANCE CRITERIA	
		1.7	The business requirements of the enterprise taking into account, existing and projected business model, organisational and information technology management structures and legal aspects of biometrics in Australia and overseas environments are analysed.
		1.8	Activities are planned to meet scheduled timelines in consultation with others involved in the work.
		1.9	Correct operation and safety of software, tools, equipment and testing devices needed to carry out the work are obtained and checked in accord requirements.
		1.10	Work supervisor or customers are consulted to determine which functions of the system are to be used and the parameters of each, and written confirmation sought.
2	Develop and validate biometric equipment/systems installation and related instructions and validation	2.1	OHS risk control measures and procedures for carrying out the work are followed.
		2.2	Knowledge of technology of biometric systems, information technology, network security and other services, installation performance standards, compliance methods and service equipment when developing the biometric system are applied in accordance with requirements.
		2.3	Development process for installation, equipment, instructions, and validation requirements of the biometric system are evaluated.
		2.4	Safety, functional and budgetary considerations are incorporated in the installation plan analysis and evaluation.
		2.5	Equipment required for the biometric system are validated in accordance with the developed plan and established procedures.
		2.6	Australian and International standards and/or codes of practice are used to evaluate compliance.

ELEMENT		PERFORMANCE CRITERIA
	2.7	Required status and parameters of each function of system devices are entered and set in accordance established procedures, manufacturers instructions and customer's requirements.
	2.8	Location of each device in the installation of the biometric system to ensure correct operation of system functions is documented.
	2.9	Solutions to unplanned situation are provided that are consistent with legal requirements and established procedures.
3 Validate and report on biometric equipment/systems installation and related instructions and validation	3.1	The biometric system is tested for compliance requirements and in accordance with OHS requirements, requirements and established procedures
	3.2	Operating anomalies are identified and reported in accordance with established routines.
	3.3	Possible system malfunctions are identified during compliance testing using logical techniques drawing on knowledge of biometric systems.
	3.4	Approaches to solving issues/problems are analysed to provide most effective solutions.
	3.5	Work completion is documented and notified appropriate person(s) or persons 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 developing biometric system installation, instructions and validating requirements of biometric systems.

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

KS01-ED155A   Biometrics and Security

Evidence shall show an understanding of biometrics equipment techniques and applications and biometric and security to an extent indicated by the following aspects:

T1   Technology applications used in forensics, genetics, civil and commercial environments and government departments for verification of identities, encompassing:

- Fingerprint matching
- Palm Print
- Hand Geometry
- Face Verification
- Iris Recognition
- Retina Scan

    Note.

    Examples of biometrics equipment technology used including scanning and digitizing of samples, enhancement of captured data, feature extraction, classification, matching, searching and manual verification

T2   Technical principles, parameters, and processes underpinning each of the above technologies in   identity recognition

T3   Typical selection, evaluation and testing criterion and methods of biometrics equipment, encompassing:

- comparative features of selection, evaluation and testing methods of various classes of equipment
- vendor claims, product suitability and product specifications

T4   Compliance requirements for implementing security on personal computers and   computer networks

T5   Compliance requirements for securing voice over the internet

T6   Compliance requirements for assuring IT network security and capital planning   measures encompassing:

- security risks versus investment risks,

REQUIRED SKILLS AND KNOWLEDGE

- investment management life cycle
- capital management and investment control
- alternatives and budget analyses of IT security

T7   Security implementation encompassing:

- biometrics in law and relationship with legislation
- trusted networks, cryptography and data security characteristics
- advanced authentication, digital certificates and digital signatures
- cost comparison and evaluative analysis

T8   Laws, standards and compliance guidelines encompassing:

- international
- national
- local
- codes
- institutional

T9   Preparing and selecting a vendor encompassing:

- client needs analysis
- project parameters according to business needs analysis
- project goals and criteria
- tender process management
- project monitoring and evaluation

T10   Deployment principles for rollout of Biometrics system(s) encompassing:

- scalability and manageability
- trailing and testing
- commissioning
- compliance documentation

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, polices and workplace procedures
- Demonstrated consistent performance across a representative range of contexts from the prescribed items below:
  - Develop and validate biometric equipment/systems installation as described in 8) and including:

A	Evaluating operating functions and parameters
B	Selecting appropriate equipment.
C	Any two of the following features:

- securing computer networks

- data base design
- measurement of a biometric system
- equipment requirements and instructions

D	Entering functions and parameters correctly.
E	Testing and verify system operation.
F	Correcting system anomalies effectively.
G	Applying knowledge of relevant legislation, standards and/or codes of practice pertaining to security and privacy associated with biometric system techniques and applications
H	Documenting and recording results in accordance with requirements
I	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 developing and validating biometric equipment/systems installation.

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 developing biometric system installation, instructions and validating requirements of biometric equipment/systems., including at least two of the following features:

- securing computer networks
- data base design
- measurement of a biometric system
- equipment requirements and instructions

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)

Competency Field