Australian Government

Department of Education, Employment and Workplace Relations

UEENEED054B Analyse and implement biometric techniques and applications

Release: 1

INDUSTRY SKILLS COUNCILS
Creating Australia's Future

UEENEED054B Analyse and implement biometric techniques and applications

Modification History

Not Applicable

Unit Descriptor

Unit Descriptor   **1)**
                             1.1) Descriptor

This unit covers analysing and implementing the various established biometric techniques and applications as implemented in the field of biometric measurements. This is achieved through evaluation of the major biometric system from enrolment phase, interaction with the operator and subject, to decision making. It encompasses safe working practices, following written and oral instructions and procedures, applying knowledge of biometric systems then implementing, testing and evaluating their performance while documenting outcomes.

Application of the Unit

Application of the Unit   4)

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

1.2) **License to practice**

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)   **2**)

                     2.1) **Competencies**

                     Granting competency in this unit shall be made only after competency in the following unit(s) has/have been confirmed.
UEENEED053B Set up and test biometric devices
For the full prerequisite chain details for this unit please refer to Table 2 in Volume 1, Part 2

Employability Skills Information

Employability Skills

3)
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 Prepare to analyse and implement biometric techniques and applications.	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 design and system rollout in criminal, civil and commercial settings.
	1.4	Technical and physical requirements of a biometric system required for efficient implementation and system rollout are identified
	1.5	Existing and planned technical and environmental goals of the enterprise are evaluated and documented.

ELEMENT		PERFORMANCE CRITERIA	
		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.
		1.7	Activities are planned to meet scheduled timelines in consultation with others involved in the work.
		1.8	Correct operation and safety of software, tools, equipment, and testing devices needed to carry out the work are obtained and checked in accord requirements.
		1.9	Work supervisor or customers are consulted to determine which functions of the system are to be used and the parameters of each and seek written confirmation.
2	Analyse and implement biometric techniques and applications	2.1	OHS risk control measures and procedures for carrying out the work are followed.
		2.2	Knowledge of technology and the processes of implementation used with biometric systems are applied in analysing and implementing biometric techniques and applications according to requirements.
		2.3	Performance of landline versus mobile telephony in association with biometric systems is analysed. Note: Analysis and evaluation to incorporate development process, target enrolment, identification and verification, system installation requirements, software, equipment requirements and instructions for the biometric system.
		2.4	Safety, functional and budgetary considerations are incorporated in the installation design plan analysis and evaluation.
		2.5	Hardware and software required for the biometric system are analysed and implemented in accordance with the developed plan and

ELEMENT		PERFORMANCE CRITERIA
		established procedures.
	2.6	Australian and International standards and/or codes of practice are used to evaluate compliance.
	2.7	Practical aspects and limitations of biometric system implementation are demonstrated through the use of multi-biometrics.
	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 Report on biometric system analysis and implementation	3.1	Hardware and software required for the biometric system are analysed for compliance requirements and in accordance with OHS requirements and established procedures
	3.2	Activities are planned to meet scheduled timelines in consultation with others involved in the work.
	3.3	Possible system malfunctions are identified during system analysis and implementation using logical techniques drawing on knowledge of biometric systems.
	3.4	Approaches to 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

7) 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 analysing and implementing biometric techniques and applications for in field use. All knowledge and skills detailed in this unit should be contextualised to current industry practices and technologies.

The extent of the essential knowledge and associated skills (EKAS) required is given in Volume 2 - Part 2.2 EKAS. It forms an integral part of this unit.

2.9.70	Automatic data capture
2.9.71.2	Biometrics Equipment Techniques and Applications
2.9.71.3	Biometric Systems Techniques and Applications

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.

EVIDENCE GUIDE

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 - UEE07'. 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:

  - Analyse and implement biometric techniques and applications as described in 8) and including:

    A   Evaluating fingerprint matching, palm print analysis, hand geometry investigation, facial verification, iris recognition, retinal scan, voice recognition, speaker verification, handwriting analysis, signature verification, DNA technology techniques and applications for in field of biometric use

    B   Implementing advice of fingerprint matching,

EVIDENCE GUIDE

                          palm print analysis, hand geometry investigation, facial verification, iris recognition, retinal scan, voice recognition, speaker verification, handwriting analysis, signature verification, DNA technology techniques and applications for in field of biometric use

C   Any two of the following features:

- analysis and evaluation development process
- target enrolment
- identification and verification
- system installation requirements
- software requirements
- equipment requirements and instructions

D   Applying knowledge of relevant legislation, standards and/or codes of practice pertaining to security and privacy associated with biometric system techniques and applications

E   Documenting and recording results in accordance with requirements

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 analysing and implementing a

EVIDENCE GUIDE

biometric system for in field use.

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**) For optimisation of training and assessment effort, competency development in this unit may be arranged concurrently with unit: UEENEED053B Develop and Validate Biometric Systems

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 analysing and implementing a biometric system, including at least two of the following features:

- analysis and evaluation development process
- target enrolment
- identification and verification
- system installation requirements
- software
- 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

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)

Computer Systems