



**Australian Government**

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

# **CPPSEC4020A Advise on the application of biometrics**

**Release: 1**

## **CPPSEC4020A Advise on the application of biometrics**

### **Modification History**

Not Applicable

### **Unit Descriptor**

#### **Unit descriptor**

This unit of competency specifies the outcomes required to research, interpret and communicate technical and practical information on the application of biometrics in the workplace.

It requires the ability to assess individual requirements and identify opportunities for the workplace application of a range of biometric devices, equipment and systems. An understanding of the operating principles, processes and parameters of biometric technology together with applicable legislation including privacy is also required.

This unit also requires self-management skills to collect, organise and present information and to seek and evaluate feedback on the effectiveness of advice.

This unit may form part of the licensing requirements for persons engaged in security operations involving biometric equipment and systems in those states and territories where these are regulated activities.

### **Application of the Unit**

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This unit of competency has application in those roles involving the provision of advice on the application of biometric technology to maintain security. Competency requires legal and operational knowledge applicable to relevant sectors of the security industry. The knowledge and skills described in this unit are to be applied within relevant legislative and organisational guidelines.

### **Licensing/Regulatory Information**

Refer to Unit Descriptor

## Pre-Requisites

Not Applicable

## Employability Skills Information

**Employability skills** This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

|                                                                   |                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Elements describe the essential outcomes of a unit of competency. | Performance criteria describe the required performance needed to demonstrate achievement of the element. Where <b><i>bold italicised</i></b> text is used, further information is detailed in the required skills and knowledge section and/or the range statement. Assessment of performance is to be consistent with the evidence guide. |
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## Elements and Performance Criteria

| ELEMENT                                         | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 Develop and maintain knowledge of biometrics. | <p>1.1 Applicable <b>Occupational Health and Safety (OHS)</b>, <b>legislative</b> and <b>organisational requirements</b> relevant to <b>biometrics</b> in the workplace are identified and complied with.</p> <p>1.2 Relevant <b>privacy legislation</b> and codes of ethics relevant to the workplace application of biometric technology are accessed and interpreted.</p> <p>1.3 Reliable and valid <b>sources</b> of current information about developments in the types and <b>applications</b> of biometric technology are accessed.</p> <p>1.4 Research is conducted appropriate to the work task and in accordance with legislative and organisational requirements.</p> <p>1.5 Research findings are documented and maintained for future use in accordance with workplace procedures.</p> <p>1.6 Strategies are implemented to ensure knowledge about developments in biometrics is regularly updated.</p> |
| 2 Assess client requirements.                   | <p>2.1 Client security requirements are identified and verified through consultation with relevant <b>persons</b>.</p> <p>2.2 Effective <b>communication</b> and <b>interpersonal</b> techniques are used that reflect sensitivity to individual <b>social and cultural</b> differences.</p> <p>2.3 Security and <b>risk</b> assessments are undertaken as required and existing or potential security issues are identified and anticipated.</p> <p>2.4 Purpose and parameters of <b>biometric systems</b>, devices and applications are discussed and confirmed with the client.</p> <p>2.5 Additional information is sought from specialists as required to assist assessment of client requirements.</p>                                                                                                                                                                                                         |
| 3 Provide advice.                               | <p>3.1 Client is provided with comprehensive advice about the types and applications of biometrics to meet identified requirements.</p> <p>3.2 Requests for clarification or expansion are responded to promptly and accurately in accordance with organisational policies and procedures.</p> <p>3.3 Recommendations and alternative options are supported by verifiable information and satisfy legal and organisational requirements.</p> <p>3.4 Information is sourced, organised and presented using <b>business equipment</b> in accordance with manufacturer's specifications.</p>                                                                                                                                                                                                                                                                                                                            |

**ELEMENT****PERFORMANCE CRITERIA**

- |                                            |                                                                                                                                             |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
|                                            | 3.5 Presented information uses clear and concise language, is free of inconsistencies and is developed in an <b>appropriate format</b> .    |
|                                            | 3.6 All information is handled securely in accordance with client confidentiality, legislative and organisational requirements.             |
| <b>4 Evaluate effectiveness of advice.</b> | 4.1 <b>Feedback</b> is sought from relevant persons on service delivery and effectiveness of advice.                                        |
|                                            | 4.2 A process of continual assessment is applied to review and evaluate client services to ensure a high standard of service is maintained. |
|                                            | 4.3 Client requirements are monitored, assessed and recommendations to modify advice are discussed with relevant persons.                   |
|                                            | 4.4 Client satisfaction with service delivery is reviewed using verifiable data in accordance with organisational requirements.             |
|                                            | 4.5 <b>Reports and records</b> are completed and processed in accordance with organisational requirements.                                  |

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge and their level required for this unit.

#### Required skills

- accurately and securely maintain records, reports and other workplace information
- coaching and mentoring to provide support to colleagues
- comply with applicable confidentiality and privacy requirements
- comply with legislation, regulations, standards, codes of practice relevant to the application of biometric technology in the workplace
- conduct security and risk assessments and identify potential security threats
- efficiently research, source and access a range of information, including legal and technical, relevant to biometric technology issues and applications
- make effective decisions
- organise work priorities and arrangements and complete work tasks within designated timeframes
- present information in required style and format
- read and interpret technical information including plans, designs and specifications
- recommend biometric systems and devices to meet identified and assessed

## REQUIRED SKILLS AND KNOWLEDGE

requirements

- relate effectively to people from a range of social, cultural and ethnic backgrounds and varying physical and mental abilities
- resolve problems
- seek, receive and evaluate feedback on work performance and delivery of client service
- select and use equipment and technology appropriate to the work task
- use appropriate communication and interpersonal skills including negotiation
- written communication skills sufficient to document research findings, present information to clients, and complete relevant records and reports.

### Required knowledge

- applicable commonwealth, state or territory legislation, regulations, standards and codes of practice relevant to the full range of processes relating to the application of biometric technology in the workplace including privacy and client confidentiality
- appropriate mathematical procedures for estimating, measuring and calculating
- ergonomic and safe working practices and procedures
- established threshold levels and their impact on security
- general principles of biometric systems and their components
- initial enrolment procedures
- methods to elicit, analyse and interpret feedback
- operational principles of information technology
- organisational procedures for recording, reporting and maintaining workplace information
- organisational standards, requirements, policies and procedures for providing advice on the application of biometrics
- principles of cultural diversity and access and equity
- problem identification and resolution procedures
- processes for the management of enrolment data
- range of applications for biometrics and their associated disadvantages
- reliable, valid and current information sources for biometric technology
- security and risk assessment methods
- types, functions, purposes and parameters of biometric systems and devices
- workplace communication channels, protocols and procedures.

## Evidence Guide

### EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

**Critical aspects for assessment and evidence required to demonstrate competency in this unit**

A person who demonstrates competency in this unit must be able to provide evidence of:

- actively seeking feedback to review and evaluate effectiveness of advice and client service delivery
- assessing security requirements and providing advice on types and applications of biometrics to accurately meet identified requirements
- complying with applicable legislation and codes of ethics applicable to privacy and client confidentiality
- complying with organisational policies and procedures, including OHS, relevant to biometric work tasks
- maintaining a current knowledge and understanding of biometric technology and workplace applications through the sourcing of reliable and valid information
- maintaining client confidentiality and secure storage of all information
- presenting advice and recommendations in a suitable format
- using appropriate communication modes and interpersonal techniques.

**Context of and specific resources for assessment**

Context of assessment includes:

- a setting in the workplace or environment that simulates the conditions of performance described in the elements, performance criteria and range statement.

Resource implications for assessment include:

- access to a registered provider of assessment services
- access to a suitable venue and equipment including biometric and business equipment
- access to plain English version of relevant statutes and procedures
- assessment instruments including personal planner and assessment record book
- work schedules, organisational policies and duty statements.

Reasonable adjustments must be made to assessment processes where required for people with disabilities. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

**Method of assessment**

This unit of competency could be assessed using the following methods of assessment:

- observation of processes and procedures
- questioning of underpinning knowledge and skills.

### **Guidance information for assessment**

Assessment processes and techniques must be culturally appropriate and suitable to the language, literacy and numeracy capacity of the candidate and the competency being assessed. In all cases where practical assessment is used, it should be combined with targeted questioning to assess the underpinning knowledge.

Oral questioning or written assessment may be used to assess underpinning knowledge. In assessment situations where the candidate is offered a choice between oral questioning and written assessment, questions are to be identical.

Supplementary evidence may be obtained from relevant authenticated correspondence from existing supervisors, team leaders or specialist training staff.

## **Range Statement**

### **RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

#### ***OHS requirements may relate to:***

- controlling and minimising risks
- correct manual handling including shifting, lifting and carrying
- elimination of hazardous materials and substances
- identifying hazards
- safe use and operation of equipment including:
  - business technology
  - first aid equipment
  - fire safety equipment
  - personal protective clothing and equipment
  - safety equipment
- safety procedures for the protection of self and others.
- Australian standards and quality assurance requirements
- award and enterprise agreements
- Compliance Policy Guidelines (CPGs)

#### ***Legislative requirements may relate to:***

***Organisational requirements may relate to:***

- counter-terrorism
- general 'duty of care' responsibilities
- licensing or certification requirements
- privacy and confidentiality
- relevant commonwealth, state and territory legislation, codes and national standards for:
  - anti-discrimination
  - cultural and ethnic diversity
  - environmental issues
  - equal employment opportunity
  - industrial relations
  - OHS
- relevant industry codes of practice
- telecommunications.
- access and equity policies, principles and practices
- business and performance plans
- client service standards
- code of conduct, code of ethics
- communication and reporting procedures
- complaint and dispute resolution procedures
- emergency and evacuation procedures
- employer and employee rights and responsibilities
- environmental management including waste disposal, recycling and re-use guidelines
- OHS policies, procedures and programs
- own role, responsibility and authority
- personal and professional development
- privacy and confidentiality of information
- quality assurance and continuous improvement processes and standards
- resource parameters and procedures
- roles, functions and responsibilities of security personnel
- standard operating procedures
- storage and disposal of information
- use and maintenance of equipment and systems.

***Biometric refers to:***

- a measurable physical characteristic or personal behavioural trait used to recognise the identity or verify the identity of an individual.

***Types of biometrics may include:***

- DNA matching
- eyes:
  - iris recognition
  - retina recognition

- face recognition
- finger geometry recognition
- fingerprint recognition
- gait
- hand geometry recognition
- odour
- signature recognition
- typing recognition and keystroke dynamics
- vein recognition
- voice:
  - speaker recognition
  - speaker verification.

***Privacy legislation  
may include:***

- Commonwealth, State and Territory Privacy Acts
- national information privacy principles
- national privacy principles.

***Sources may include:***

- Internet
- literature
- professional associations and networks
- workshops.

***Biometric applications  
may be:***

- commercial:
  - access control
  - banking and finance (ATM and credit card access, e-commerce)
  - cybersecurity (computer network login and electronic data security, internet access)
  - encryption and watermarking
  - travel and transportation
- forensic:
  - corpse identification
  - criminal investigation
  - parenthood determination
  - terrorist identification
- government:
  - airport security
  - border control
  - correctional facility
  - healthcare
  - homeland security
  - identity management
  - law enforcement

- national ID card, driver's licence
  - passport control
  - physical access control
  - social security.
- Relevant persons may include:***
- biometric technology specialists
  - clients
  - colleagues
  - external consultants
  - information technology specialists
  - manager.
- Communication may be:***
- face-to-face
  - group interaction
  - in Indigenous languages
  - in languages other than English
  - oral reporting
  - participation in routine meetings
  - reading independently
  - recording of discussions
  - speaking clearly and directly
  - through the use of assistive technology
  - via an interpreter
  - visual or written
  - writing to audience needs.
- Interpersonal techniques may involve:***
- active listening
  - being non-judgemental
  - being respectful and non-discriminatory
  - constructive feedback
  - control of tone of voice and body language
  - culturally aware and sensitive use of language and concepts
  - demonstrating flexibility and willingness to negotiate
  - effective verbal and non-verbal communication
  - maintaining professionalism
  - providing sufficient time for questions and responses
  - reflection and summarising
  - two-way interaction
  - use of plain English
  - use of positive, confident and cooperative language.
- Social and cultural differences may relate to:***
- dress and personal presentation
  - food
  - language

- religion
  - social conventions
  - traditional practices
  - values and beliefs.
- Risk relates to:**
- the chance of something happening that will have an impact on objectives.
- Security risks may relate to:**
- biological hazards
  - chemical spills
  - client contact
  - electrical faults
  - explosives
  - financial viability
  - injury to personnel
  - noise, light, heat, smoke
  - persons carrying weapons
  - persons causing a public nuisance
  - persons demonstrating suspicious behaviour
  - persons suffering from emotional or physical distress
  - persons under the influence of intoxicating substances
  - persons with criminal intent
  - persons, vehicles and equipment in unsuitable locations
  - property or people
  - security systems
  - suspicious packages or substances
  - systems or process failures
  - terrorism
  - violence or physical threats.
- Biometric systems are:**
- automated systems able to capture a biometric sample from an individual person, extract biometric data from the sample, compare the data with one or more reference templates, determine the quality of a match, and indicate whether or not an identification or verification of identity has been achieved.
- Biometric equipment and systems may include:**
- acquisition devices:
    - cameras (video, infrared-enabled video, single-image)
    - chip or reader embedded in peripheral device
    - microphones
    - optical scanners
  - biometric servers
  - hardware
  - interconnecting infrastructure
  - software:

- server-based authentication software for biometric authentication and logging
  - software associated with acquisition devices.
- Business equipment may include:***
- computers and computer applications
  - data management applications and servers
  - e-mail
  - facsimile machines
  - internet, extranet, and intranet
  - modems
  - personal schedulers
  - photocopiers
  - printers.
- Appropriate format may include:***
- formats that cater for those with special needs for example, producing documents in large print.
- Feedback may include:***
- comments from managers, supervisors, colleagues or clients
  - formal or informal performance appraisals
  - personal reflective behaviour strategies
  - workplace assessment.
- Records and reports:***
- may be:
    - computer-based
    - manual
    - other appropriate organisational communication system
  - may detail:
    - activity reports
    - client meetings
    - client requirements
    - oral briefings
    - security and risk assessments
    - technical data and specifications
    - telephone conversations.

## Unit Sector(s)

**Unit sector**                      Security

## **Competency field**

**Competency field**      Biometrics