40047 Perform a security assessment for an organisation in an IT environment

Kaupae | Level	5
Whiwhinga | Credit	15
Whāinga | Purpose	This skill standard is for people who want to learn how to perform security assessments in organisational contexts. It contributes to a broad understanding of core concepts and practical skills in Information Technology (IT) and is for those employed or seeking employment in technical support roles such as computer technicians and help desk and technical support officers. It can be used in programmes leading to the New Zealand Diploma in Information Technology Technical Support (Level 5) [Ref: 2596].

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako | Learning outcomes	Paearu aromatawai | Assessment criteria
1. Analyse ethical and legal aspects of information security in an IT environment and how they contribute to IT decision making.	a. Evaluate the impact of legal and ethical principles and work practices on IT decision-making in the organisation.
	b. Identify specific IT initiatives or policies within an organisation that apply the IT Professional Code of Ethics.
	c. Evaluate the areas within the IT organisation that address Te Tiriti o Waitangi.
2. Assess an organisation's information security procedures and policies.	a. Explain the significance of confidentiality, integrity, and availability (CIA triad) in information protection.
	b. Investigate an IT organisation's security policies and procedures in maintaining a secure environment.
	c. Recommend effective security policies and procedures for an IT organisation.
3. Perform information security assessments for an organisation.	a. Analyse the potential threats to an organisation's information security, including malware, social engineering, and insider threats.
	b. Use security assessment tools to perform vulnerability assessment and analyse risk factors in an organisation.

		c.	Analyse attack vectors and techniques to exploit vulnerabilities of an organisation.
4.	Utilise appropriate tools to assess organisational security.	a.	Use vulnerability scanning tools to assess and identify security vulnerabilities within an organisation.
		b.	Use network security simulators to create and assess secure network configurations.
		c.	Apply role-based access control (RBAC) principles to manage user permissions effectively in assessing security.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

The assessment must take place in a realistic practical setting which incorporates industry standard technologies relevant to current practice.

The assessor may gather evidence for this assessment over time from a range of scenarios as opposed to a single assessment in which the learner must apply all of the assessment criteria.

Ngā momo whiwhinga | Grades available

Achieved.

Ihirangi waitohu | Indicative content

- IT Professional Code of Ethics
- Cybersecurity Ethics
- Te Tiriti o Waitangi
- Information Security Principles
- Security Assessments
- Tools for Security Assessments (e.g., CSAT, OWASP ZAP, OpenVAS, Wireshark)
- Human behaviour that affects security
- Expected standards of behaviour for IT practitioners in New Zealand as outlined in the IT Professionals New Zealand Code of Ethics.

Rauemi | Resources

- The IT Professionals New Zealand Code of Ethics is available at https://itp.nz/practice-guidelines.
- Relevant legislation, accessible at https://legislation.govt.nz, includes but is not limited to:
  - Copyright Act 1994
  - Copyright (New Technologies) Amendment Act 2008
  - Electronic Transactions Act 2002
  - Harmful Digital Communications Act 2015
  - Health and Safety at Work Act 2015
  - Privacy Act 2020
  - Unsolicited Electronic Messages Act 2007
  - And any subsequent amendments.

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa | Standard Setting Body	Toi Mai Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai | DASS classification	Computing and Information Technology > Computing > Generic Computing
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga | CMR	0099

Hātepe | Process	**Putanga |** Version	**Rā whakaputa |** Review Date	**Rā whakamutunga mō te aromatawai |** Last date for assessment
Rēhitatanga | Registration	1	26 April 2024	N/A
Kōrero whakakapinga | Replacement information	N/A		
Rā arotake | Planned review date	31 December 2028		

Please contact Toi Mai Workforce Development Council at qualifications@toimai.nz to suggest changes to the content of this skill standard.