**900103-000-00-KM-01, Cyber Defence Introduction, NQF Level 4, Credits 7**

**SUMMATIVE ASSESSMENT**

**MODULE ONE (1)**

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| --- | --- |
| **Module #** | 900103-000-00-KM-01 |
| **NQF Level** | 4 |
| **Notional hours** | 70 |
| **Credit(s)** | 7 |
| **Occupational Code** | 900103-000-00-00 |
| **SAQA QUAL ID** | SP - 220330 |
| **Qualification Title** | Cybersecurity Defender |

|  |  |
| --- | --- |
| **Name** |  |
| **Contact Address** |  |
| **Telephone (H)** |  |
| **Telephone (W)** |  |
| **Facsimile** |  |
| **Cellular** |  |
| **E-mail** |  |

**Note to the learner**

This Learner Guide provides a comprehensive overview of the module. It is designed to improve the skills and knowledge of learners, and thus enabling them to effectively and efficiently complete specific tasks.

**Purpose of the Module**

The main focus of the learning in this knowledge module is to build an understanding of the basics of cybersecurity including definitions, concepts, terminology and the adverse effect of cyber vulnerabilities on the safety and security of company information, data and systems. They will also understand the importance of a safe cybersecurity and threat posture of a company

The learning will enable learners to demonstrate an understanding of:

* KM-01-KT01 : Introduction to cybersecurity 30%
* KM-01-KT02 : Cybersecurity basics 20%
* KM-01-KT03 : Cybersecurity governance fundamentals 20%
* KM-01-KT04 : A cyber secure organisation 15%
* KM-01-KT05 : Basics of threat intelligence 15%

**Entry Requirements**

NQF 3 (Gr 11) with Computer Literacy, English and Math Lit

**Provider Accreditation Requirements for the Knowledge Module**

*Physical Requirements:*

* The provider must have lesson plans and structured learning material or provide learners with access to structured learning material that addresses all the topics in all the knowledge modules as well as the applied knowledge in the application modules
* QCTO/ MICT SETA requirements

*Human Resource Requirements:*

* Lecturer/learner ratio of 1:20 (Maximum)
* Qualification of lecturer (SME):

NQF 5 qualified in industry recognised qualifications with 1 years’ experience in the IT industry

Cybersecurity vendor certification

* Assessors and moderators: accredited by the MICT SETA

*Legal Requirements:*

* Legal (product) licences to use the software for learning and training
* OHS compliance certificate
* Ethical clearance (where necessary)

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*Physical Requirements:*

* Valid licenses software and application, including OS.
* Internet connection and hardware availability.
* Examples and information specified in the scope statement and all the case studies, scenarios and access to hardware and software implied in the scope statements of the modules.
* Remote learners: Provider must provide business IT simulation system (e.g. invoice processing).

*Human Resource Requirements:*

* Qualification of lecturer (SME):  
  o NQF 5 industry recognised qualification with 1 year relevant experience
* Assessors and moderators: accredited by the MICT SETA

*Legal Requirements:*

* + Legal (product) licences to use the software for learning and training
  + OHS compliance certificate
  + Ethical clearance (where necessary)

**Venue, Date and Time:**

Consult your facilitator should there be any changes to the venue, date and/or time.

Refer to your timetable.

**Assessments**

**Associated Assessment Criteria (AACs)**

* Basic governance principles and concepts related to cybersecurity are understood.
* Basic concepts and principles of cybersecurity are understood.
* Basic concepts and principles of cyber threats and attacks are understood.
* Basic concepts and principles of cyber defence are understood.
* Ethical considerations in ethical hacking and penetration testing are understood.
* Procedures to respond to cybersecurity incidents are understood.

**Associated Assessment Criteria (AACs)**

* User and host identities are verified.
* Mechanisms are put in place to prevent system intrusions.
* Automated tools are used to guard against intrusions.
* Network confidentiality is ensured.
* The security posture is evaluated to detect vulnerabilities and to enhance resilience.

**Associated Assessment Criteria (AACs)**

* Threats to the cybersecurity of the company are detected.
* Adversary techniques, tactics and practices (TTPs) are emulated
* using an emulation platform.
* Network traffic is monitored and analysed using a suitable platform.
* Incidents are identified, responded to and reported.

**Associated Assessment Criteria (AACs)**

* Foot-printing tools are used against a target and intelligence is gathered.
* Vulnerabilities are identified using penetration testing tools.
* Servers and devices are attacked to build better defences.
* Clients are manipulated to uncover internal threats.
* Targets are exploited to increase cybersecurity.

Antivirus and intruder detection systems (IDS) are tested

# PURPOSE OF THE QUALIFICATION

Cybersecurity Defenders are responsible for proactively protecting organisations’ systems from attacks, they are the first line of defence against cyberattacks, the first responders to cybersecurity breaches and are responsible for the hardening of the information systems of organisations ensuring compliance with legislation

# QUALIFICATION RULES

This Skills Programme consist of two components namely Knowledge/Theory component and Application component. The following are compulsory modules in each of the two components:

**Knowledge/Theory Component:**

The following Modules are compulsory:

* 900103-000-00-KM-01, Cyber Defence Introduction, NQF Level 4, Credits 7
* 900103-000-00-KM-02, Cyber Threats and Attacks, NQF Level 4, Credits 7
* 900103-000-00-KM-03, Cybersecurity, NQF Level 4, Credits 7
* 900103-000-00-KM-04, Responding to Cybersecurity Incidents, NQF Level 4, Credits 5

Total number of credits for Knowledge Component: 26

**Application Component:**

* 900103-000-00-PM-01, Protect against cybersecurity threats, intrusions and attacks, NQF Level 4, Credits 11
* 900103-000-00-PM-02, Detect cybersecurity threats, intrusions and attacks, NQF Level 4, Credits 11
* 900103-000-00-PM-03, Conduct Penetration Testing Techniques to Determine Security, NQF Level 4, Credits 12

Total number of credits for Application Component: 34

# EXIT LEVEL OUTCOMES

**Exit Level Outcomes (ELO) 1**

Demonstrate knowledge and understanding of cybersecurity, cyber

threats and attacks and cyber defence

**Exit Level Outcomes (ELO) 2**

Protect against cybersecurity intrusions and attacks

**Exit Level Outcomes (ELO) 3**

Detect cybersecurity threats and attacks

**Exit Level Outcomes (ELO) 4**

Use different penetration testing tools to identify vulnerabilities in the security posture of an organisation

# KM-01-KT01: Introduction to cybersecurity 30%

1. **IAC0103 Analyse the impact of cyberattacks, incidents and data breaches on companies.**

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1. **IAC0104 Give reasons for attacking specific targets.**

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# KM-01-KT02 : Cybersecurity basics 20%

1. **IAC0201 Discuss the cybersecurity as an escalating global pandemic.**

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# KM-01-KT03 : Cybersecurity governance fundamentals 20%

1. **IAC0301 Describe the compliance with legislation.**

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1. **IAC0302 Describe the aim and function of various governance tools.**

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# KM-01-KT04 : A cyber secure organisation 15%

1. **IAC0402 Discuss the importance of a resilient cybersecurity posture.**

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1. **IAC0403 Justify the importance of ethics in cybersecurity.**

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