

CERTIFICATE IN CYBER SECURITY

6 Month Course 2025



CYBER SECURITY INSTITUTE
Solutions + Advisory + Learning



Course Details

This practical, hands-on course focuses on establishing a foundation in Cyber Security by introducing candidates to cyber-crime, attack methods, and managing cyber risks.

Developed by the Cyber Security Institute (CSI) and offered in collaboration with the Cape Peninsula University of Technology (CPUT) and the French South African Institute of Technology (FSATI). Mode of Offering: The course is presented via facilitated e-learning, utilising an e-learning platform and virtual classes. Intended Audience: This course is designed for individuals embarking on a career in Cyber Security or performing security functions.

Mode Of Learning

February 2025 – July 2025

Learning will be conducted through a facilitated online format, utilising an e-learning platform to provide an interactive and engaging educational experience. Additionally, hands-on practical sessions and virtual labs will be conducted offering participants the opportunity to apply theoretical knowledge in a real-world context. This blend of online facilitated learning and scheduled virtual sessions aims to create a comprehensive and dynamic learning environment, ensuring a well-rounded educational experience for participants.

Duration

This course is designed for individuals embarking on a career in Cyber Security or performing security functions.



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Important Course Information



Requirements

Applicants should have a Matric certificate or equivalent qualification with suitable IT knowledge, Internet access, and a PC or laptop on which applications can be installed and services accessed.

Intake

We have two main intakes, one at the end of February and another at the end of June. Additional intakes may be scheduled depending on application volumes and requirements.

Costs & Duration

6-months and R10,500 all-inclusive course



Course Overview

Practical Cryptography

- Introduction to cryptography.
- Encryption and Decryption.
- Hash functions
- Blockchain
- Virtual Currencies
- Digital signatures
- Digital certificates
- Cryptographic Protocols (SSL, SSH, etc.)

Cyber Governance, Risk & Compliance

- Overview of cyber governance, risk, and compliance
- POPIA & GDPR
- Data Privacy
- Policies in action
- NIST, ISO27001
- Controls
- Planning for contingencies
- Developing the security program
- Risk analysis and management

Cyber Intelligence

- Introduction to Cyber Intelligence
- Attack Tools
- Attack process
- Reconnaissance and Footprinting
- OSINT services and tools
- Threat and vulnerability feeds and assessments

Cyber-crime

- Introduction to cyber-crime
Cyber-attack methods (e.g., ransomware, sextortion, email fraud)
- Cyber criminology (actors behind the attacks, criminal networks, state-sponsored entities, etc.)
- Tracing the online trail
- Dark web (criminal forums)
- Case studies of attacks in SA & Global.
- Crime-as-a-Service
- Internet of (Criminal) Things.