IT Security - Defense Against the Digital Dark Art Training Course

Professional Development Training Course Outline

Category	Data Security	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

The modern digital landscape is an escalating battlefield where sophisticated cyber threats constantly evolve, demanding proactive and expert digital defense strategies. IT Security - Defense Against the Digital Dark Art Training Course provides a comprehensive, hands-on masterclass in fortifying organizational assets against the gravest perils, from advanced Ransomware-as-a-Service (RaaS) and insidious AI-driven phishing to critical supply chain vulnerabilities. Participants will master the fundamental concepts of Confidentiality, Integrity, and Availability (CIA Triad), delve into cutting-edge Zero Trust Architecture (ZTA), and implement robust Cloud Security solutions. IT Security - Defense Against the Digital Dark Art Training Course is designed not just to inform but to transform IT professionals into resilient cyber defense specialists, capable of executing effective Continuous Threat Exposure Management (CTEM) and leading prompt incident response efforts in a world increasingly threatened by quantum computing risk and massive data breaches.

Beyond foundational knowledge, this course emphasizes practical, SEO-friendly skills development in high-demand areas like endpoint security, advanced cryptography, and holistic threat hunting. Through real-world case studies including lessons from the Equifax breach and modern deepfake scams we will dissect complex attacks to build a human firewall of security-aware professionals. Our curriculum is tailored to address the current top-tier challenges, focusing on securing expansive IoT environments and mitigating risks associated with DevSecOps pipelines. By integrating hands-on labs and practical policy development, this training ensures participants leave equipped with the strategic mindset and technical tools necessary to protect critical digital infrastructure and maintain regulatory compliance in an era where digital security is synonymous with business continuity.

Programme Curriculum

IT Security - Defense Against the Digital Dark Art Training Course

Introduction

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Course Duration

5 days

Course Objectives

Upon completion, participants will be able to:

1. Implement Zero Trust Architecture (ZTA) principles to secure complex modern networks.
2. Analyze and mitigate advanced AI-driven cyber threats and deepfake social engineering tactics.
3. Design and deploy resilient Cloud Security Posture Management (CSPM) strategies for multi-cloud environments.
4. Master current post-quantum cryptography principles and their application in data protection.
5. Execute effective Continuous Threat Exposure Management (CTEM) cycles for proactive risk reduction.
6. Develop and test robust Incident Response and Recovery Plans against major breaches.
7. Secure the supply chain and third-party vendor relationships to prevent systemic compromises.
8. Apply DevSecOps best practices to embed security into the entire software development lifecycle.
9. Configure and monitor advanced Endpoint Detection and Response (EDR) systems.
10. Differentiate, implement, and audit modern Multi-Factor Authentication (MFA) and passwordless solutions.
11. Conduct essential Vulnerability Assessments and lead ethical Threat Modeling exercises.
12. Ensure corporate compliance with major data privacy and regulatory compliance frameworks.
13. Establish a proactive, organization-wide security-aware culture and human firewall.

Target Audience

1. IT Support Specialists and Help Desk Professionals
2. Junior Cybersecurity Analysts and Technicians

3. System Administrators and Network Engineers
4. Non-Security Software Developers and IT Auditors
5. Small Business Owners and IT Managers
6. Employees involved in Data Handling or Regulatory Compliance
7. Individuals seeking a foundation for Security+ or other entry-level certifications
8. General Business Users needing comprehensive Security Awareness training

Course Modules

Module 1: The Digital Threat Landscape and Core Principles

- Understanding the CIA Triad and the DREAD threat model.
- Identifying the spectrum of cyber threats
- Fundamentals of Risk Management.
- The evolution of social engineering.
- Establishing essential security policies and procedures.
- Case Study: The MGM Resorts Ransomware Attack.

Module 2: Cryptography and Secure Communications

- The mathematics of security.
- Implementing Hashing for integrity verification and password storage best practices.
- Understanding and managing the Public Key Infrastructure and digital certificates.
- Securing network traffic with SSL/TLS and Virtual Private Networks.
- The emerging threat of quantum computing and the need for post-quantum cryptography.
- Case Study: The Apple PQ3 Protocol Deployment (2024).

Module 3: Authentication, Authorization, and Access Control (AAA)

- Core concepts of Authentication, Authorization, and Accounting.
- Implementing strong Multi-Factor Authentication and passwordless technologies.
- Designing an effective Identity and Access Management framework.
- Introduction to Zero Trust Architecture.
- Managing user access with Role-Based Access Control and least privilege principles.
- Case Study: The SolarWinds Supply Chain Attack.

Module 4: Network and Perimeter Defense

- Secure network architecture.
- Deployment and configuration of Firewalls, Intrusion Detection Systems, and Intrusion Prevention Systems.
- Hardening wireless networks.
- Monitoring network traffic with packet capture tools and Security Information and Event Management.
- Securing IoT/OT devices through network isolation and strong patching policies.
- Case Study: The Ukraine Power Grid Attack (2015/2016).

Module 5: Endpoint and System Hardening

- Principles of System Hardening.
- Implementing and managing Endpoint Detection and Response and Anti-Malware solutions.
- Effective patch management and vulnerability scanning processes.
- Securing client-side applications and browsers against drive-by downloads.

- Strategies for securing data on mobile devices and during remote work.
- Case Study: The WannaCry Ransomware Epidemic.

Module 6: Cloud Security and DevSecOps Integration

- Understanding the Shared Responsibility Model in cloud environments
- Implementing Cloud Security Posture Management and configuration auditing.
- Integrating security into the development pipeline and secure coding practices
- Securing containers and serverless functions in modern cloud applications.
- Data protection in the cloud: Encryption and geo-location considerations.
- Case Study: Capital One Data Breach (2019).

Module 7: Incident Response and Business Continuity

- The six phases of Incident Response.
- Developing and testing a robust Business Continuity and Disaster Recovery plan.
- Digital forensics basics and evidence preservation.
- Effective communication and legal considerations during a major data breach.
- Introduction to Threat Hunting and continuous monitoring.
- Case Study: The Equifax Data Breach (2017).

Module 8: Compliance and Building a Security Culture

- Understanding key Regulatory Compliance frameworks
- The role of IT security in Data Privacy and governance.
- Conducting security audits and external penetration testing.
- Building a pervasive security-aware culture and the Human Firewall concept.
- Future outlook: AI for cyber defense and the evolving role of the security professional.
- Case Study: British Airways GDPR Fine.

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call +254769199797

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
21 Sep 2026	25 Sep 2026	Online	$1,000
21 Sep 2026	25 Sep 2026	Physical	$1,500
21 Sep 2026	25 Sep 2026	Physical	$0
21 Sep 2026	25 Sep 2026	Physical	$0
21 Sep 2026	25 Sep 2026	Physical	$0
21 Sep 2026	25 Sep 2026	Physical	$0
21 Sep 2026	25 Sep 2026	Physical	$0
21 Sep 2026	25 Sep 2026	Physical	$0

Ready to enroll or request a customized program? Book online or contact us:

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