Cyber Espionage Investigation and Analysis Training Course

Professional Development Training Course Outline

Category	Criminology	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

In the evolving landscape of cyber threats, cyber espionage has emerged as one of the most complex and covert threats faced by governments, corporations, and individuals alike. Training Course on Cyber Espionage Investigation & Analysis is meticulously designed to equip cybersecurity professionals, law enforcement agents, intelligence analysts, and forensic investigators with the essential tools, techniques, and frameworks required to detect, investigate, and neutralize cyber espionage activities. From threat intelligence gathering to advanced malware analysis, participants will develop actionable skills for safeguarding national security, intellectual property, and sensitive data.

Through real-world case studies, hands-on labs, and cutting-edge theory, participants will explore the lifecycle of a cyber espionage attack, attribution methods, and the legal and ethical considerations involved in digital investigations. Whether combating state-sponsored actors, APT groups, or corporate espionage threats, this course provides a comprehensive, investigative, and analytical approach to identifying and countering cyber espionage. By the end of the course, attendees will be prepared to lead digital forensic investigations, build cyber threat intelligence reports, and collaborate across agencies to protect organizational assets.

Programme Curriculum

Cyber Espionage Investigation and Analysis Training Course

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Course Objectives

1. Understand the foundations of cyber espionage tactics and tools.
2. Detect and analyze Advanced Persistent Threats (APT) in real-time environments.
3. Learn threat intelligence collection and analysis techniques.
4. Conduct malware reverse engineering to trace espionage origins.
5. Apply network forensics to track intrusions and data exfiltration.
6. Master cyber attribution strategies for attacker profiling.
7. Use digital forensics tools for gathering admissible evidence.
8. Interpret cyber threat indicators (IoCs, TTPs) with contextual relevance.
9. Explore insider threat detection in espionage contexts.
10. Integrate legal and ethical frameworks in cyber investigations.
11. Create cyber incident response plans tailored to espionage threats.
12. Perform social engineering analysis within espionage campaigns.
13. Develop cross-agency collaboration protocols for threat mitigation.

Target Audience

1. Cybersecurity Analysts
2. Digital Forensic Investigators
3. Law Enforcement Agencies
4. Government Intelligence Officers
5. Military Cyber Units
6. Corporate Security Professionals
7. Incident Response Teams
8. Legal and Compliance Professionals

Course Duration: 10 days

Course Modules

Module 1: Introduction to Cyber Espionage

- History and evolution of cyber espionage
- Understanding state and non-state actors
- Key characteristics of espionage campaigns
- The role of geopolitical tensions
- Differences between cybercrime and cyber espionage
- **Case Study: The GhostNet Espionage Operation**

Module 2: Threat Landscape and APT Groups

- Common TTPs (Tactics, Techniques, and Procedures)
- Global classification of APTs
- Tools used by elite hacker groups
- MITRE ATT&CK framework application
- Sector-specific espionage threats

- **Case Study: APT29 (Cozy Bear) operations against the US**

Module 3: Cyber Espionage Attack Lifecycle

- Reconnaissance and weaponization phases
- Delivery and exploitation methods
- Installation and command/control
- Data exfiltration and maintaining persistence
- Detection at each stage of the attack
- **Case Study: SolarWinds Attack Vector Analysis**

Module 4: Threat Intelligence Fundamentals

- Open-source intelligence (OSINT) collection
- Deep and dark web reconnaissance
- Threat actor profiling
- Threat intelligence platforms (TIPs)
- STIX, TAXII, and threat intel sharing
- **Case Study: FireEye Threat Intelligence Integration**

Module 5: Malware Analysis and Reverse Engineering

- Types of malware used in espionage
- Static vs dynamic malware analysis
- Behavioral analysis with sandboxes
- Memory forensics in malware analysis
- Extracting IOCs from samples
- **Case Study: Stuxnet Malware Breakdown**

Module 6: Network Forensics for Espionage Detection

- Network traffic analysis tools (Wireshark, Zeek)
- Packet capture and inspection techniques
- Protocol analysis and anomalies
- DNS tunneling and covert channels
- Data exfiltration detection
- **Case Study: Exfiltration via HTTPS in Operation Cloud Hopper**

Module 7: Digital Forensics for Evidence Collection

- Chain of custody and legal evidence handling
- File system analysis (NTFS, ext4)
- Registry and log analysis
- Mobile device forensics
- Encryption and anti-forensics detection
- **Case Study: Forensic Analysis in the Sony Pictures Hack**

Module 8: Cyber Attribution and Actor Profiling

- Behavioral and linguistic analysis
- Infrastructure linking and code reuse
- Geo-location via network traces
- Attribution challenges and false flags
- Public-private attribution models
- **Case Study: Attribution of Lazarus Group in WannaCry**

Module 9: Insider Threat and Corporate Espionage

- Recognizing behavioral indicators
- Risk assessment frameworks
- Use of DLP (Data Loss Prevention) systems
- HR and IT policy integration
- Monitoring suspicious activities
- **Case Study: Insider Leak at General Electric**

Module 10: Legal, Ethical, and Policy Considerations

- National and international cyber laws
- Privacy and surveillance ethics
- Lawful intercept and compliance
- Chain of evidence in court
- Cyber norms and state accountability
- **Case Study: Legal Fallout of NSA Surveillance Programs**

Module 11: Incident Response for Espionage Cases

- Building an IR team for espionage detection
- IR lifecycle and playbook creation
- Detection and containment strategies
- Remediation and post-mortem
- Reporting and regulatory requirements
- **Case Study: IR Strategy During the Marriott Breach**

Module 12: Social Engineering in Espionage

- Phishing and spear-phishing campaigns
- Pretexting and baiting tactics
- Psychological profiling of targets
- Red teaming for social engineering
- Email security best practices
- **Case Study: Phishing Attack on RSA Security**

Module 13: Threat Hunting Techniques

- Hypothesis-driven threat hunting
- Leveraging SIEM and EDR tools
- Detection engineering for espionage
- Real-time analytics and anomaly detection
- Creating detection rules and playbooks
- **Case Study: MITRE’s Purple Team Hunting Scenario**

Module 14: Advanced Tools and Automation

- AI and machine learning in cyber detection
- Scripting and automation for forensics
- IOC enrichment tools
- Use of YARA rules for detection
- Integration of SOAR platforms
- **Case Study: Automation of Espionage Detection at a Fortune 500**

Module 15: Strategic Cyber Defense Planning

- Risk management and mitigation strategies
- National cybersecurity frameworks

- Cross-border cooperation and treaties
- Resilience and continuity planning
- Educating and training stakeholders
- **Case Study: NATO Cyber Defense Strategy Implementation**

Training Methodology

- Interactive lectures by subject matter experts
- Hands-on labs and real-world simulation exercises
- Group assignments and collaborative threat analysis
- Access to forensic and intelligence platforms
- Daily debriefings with Q&A and expert feedback
- Real case studies and incident reconstructions

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
23 Nov 2026	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

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

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