



Identification of Critical Cybersecurity Areas Organization of Work Team

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Outline

- Identification of Critical Cybersecurity Education Areas
- Formation of Teams



Identification of Critical Cybersecurity Education Areas

Security Misconceptions, Vulnerabilities and Threats (SMVT).

1. Overview of Misconceptions, vulnerabilities and threats (LO-SMVT001).
2. Vulnerabilities (LO-SMVT002).
3. Threat Propagation (LO-SMVT003)
4. 4. Cyber Attacks and Internet Vulnerabilities (LO-SMVT004)



Identification of Critical Cybersecurity Education Areas

Security Countermeasures, Policies and Models (SCPM).

1. Security Countermeasures (LO-SCPM001).
2. Authentication and Authentication (LO-SCPM002).
3. Authorization and Access control (LO-SCPM003)
4. Role Based Access Control (RBAC) Security Model (LO-SCPM004)



Identification of Critical Cybersecurity Education Areas

Security Patterns using UML (SPU).

1. Unified Modeling Language (UML) (LO-SPU001).
2. Security Patterns (LO-SPU002)
3. Secure Software Development (LO-SPU003)



Identification of Critical Cybersecurity Education Areas

Security-Based Testing (SBT).

1. Security and Software Testing (LO-SBT001).
2. Secure Verification and Validation Testing (LO-SBT002)
3. Secure Input Validation and Exceptional Handling Testing (LO-SBT003)
4. Simulating Security Breaches through Testing (LO-SBT004).



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Security Toolkits and Applications for Ethical Hacking (STH).

1. Overview of Security Toolkits and Applications for Ethical Hacking (LO-STH001).
2. Nmap/Zenmap (LO-STH002)
3. Metasploit Framework (LO-STH003)



Identification of Critical Cybersecurity Education Areas

Ethical Wireless Hacking (EMH).

1. Overview of 802.11 Wireless Networks (LO-EWH001).
2. Overview of Aircrack-ng (LO-EWH002)
3. 802.11 Wireless Network Discovery, Bypass, and Attach (LO-EWH003)
4. WEP and WAP Encryption Vulnerabilities. (LO-EWH004)



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Basics of Cryptography (BC).

1. Symmetric key cryptography (LO-BC001).
2. Public key cryptography - RSA (LO-BC002)
3. Cryptographic hash functions (LO-BC003)
4. Digital signatures (LO-BC004)
5. Public key certificates (LO-BC005)



Identification of Critical Cybersecurity Education Areas

Password Safety (PS).

1. Impacts of weak passwords (LO-PS001)
2. Password operation and vulnerabilities (LO-PS002)

Tutorial:

1. 1. John the Ripper [JtR]



Workshop Teams

- Initial team formation is on the participant's list in your folders

