FLORIDA INTERNATIONAL UNIVERSITY



School of Computing & Information Sciences

Identification of Critical Cybersecurity Areas Organization of Work Team

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Francisco Ortega (FIU)

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Outline

- Identification of Critical Cybersecurity Education Areas
- Formation of Teams



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)



- 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)



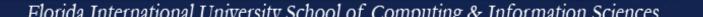
Security Patterns using UML (SPU).

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



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).



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)



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)



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)



- Password Safety (PS).
- 1. Impacts of weak passwords (LO-PS001)
- 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

