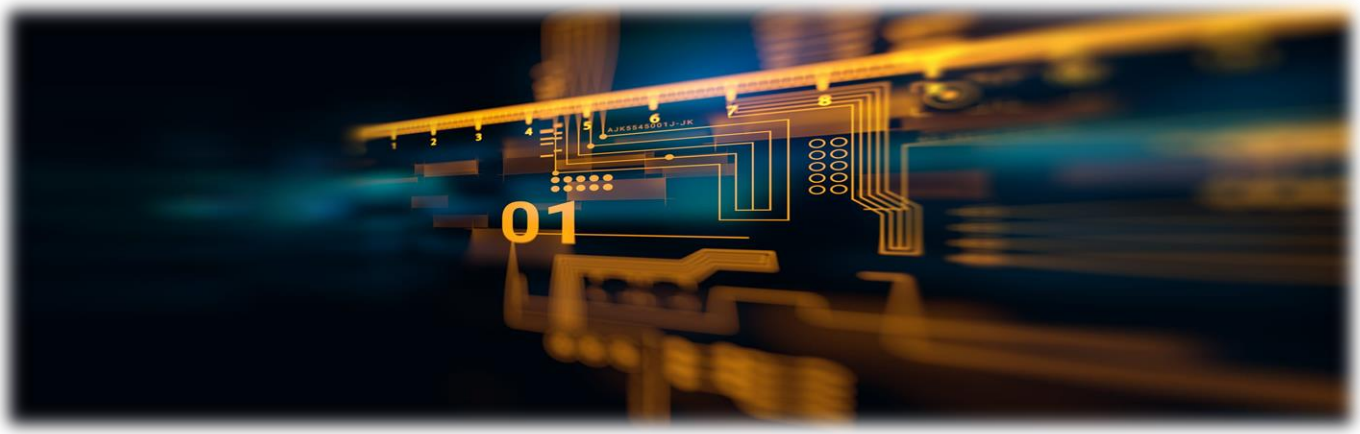
CyberSPAIS
Security Privacy & Assurance of Information Systems

CyberSPAIS Diploma in Information Security (CDIS)



CyberSPAIS Diploma in Information Security (CDIS) – Overview

- Who Is Eligible for This Course?
  - Freshers looking to launch a career in cybersecurity.
  - Working professionals planning to switch to cybersecurity.

- Course Duration
  - 8 Months (320 Hours)

- Potential Job Roles Relevant to The Course
  - Security Analyst, Security Engineer, Vulnerability Analyst, Penetration Tester, Red & Blue Teaming, Bug Bounty Hunting, Security Consultant, Cybersecurity Engineer, Network Engineer, Network Security Analyst, Server Administrator, Server Security Specialist, Cloud Specialist, Cloud Security Engineer, Threat Hunter, Cybersecurity Analyst, Application Security Analyst, Threat Intelligence Analyst, Security Consultant, Data Privacy Officer, Information Security Officer, Business Continuity Officer, Security Auditor.

- Course Syllabus
  - Module 1: Network & Communications Security - 40 Hours
  - Module 2: Server & OS Security - 30 Hours
  - Module 3: Cloud Security (AWS) - 30 Hours
  - Module 4: Ethical Hacking (CEH) - 40 Hours
  - Module 5: Penetration Testing & Red Teaming - 20 Hours
  - Module 6: Security Operations Centre (SOC) - 40 Hours
  - Module 7: Implementing an ISMS (ISO 27001) - 20 Hours
  - Module 8: Risk Management (NIST RMF) - 10 Hours
  - Module 9: Data Privacy Protection (ISO 27701) - 10 Hours
  - Module 10: Business Continuity & Disaster Recovery (10 Hours)
  - Module 11: Software Development Security (15 Hours)
  - Module 12: Supply Chain Security (15 Hours)
  - Module 13: ICS/OT Security (10 Hours)
  - Module 14: Conducting Security Audits (10 Hours)

- Potential Certifications Relevant to The Course
  - CCNA, CompTIA Network+, CompTIA Security+, AWS Cloud Practitioner, AWS Certified Security, CEH, CPENT, CompTIA Pentest+, CSA, CySA+, ISO 27001 LI, CISSP, ISO 27001 LA.

- Why Training @CyberSPAIS?
  - Job Oriented Industry Relevant Curriculum
  - Based On Latest Cyber Security Topics & Trends
  - 100% Assistance for Placements & Internships

- Industry Experienced & Certified Trainer
- Concepts Explained with Industry Scenarios
- Comprehensive Hands-on Sessions & Labs
- Regular Module Wise Assessments & Evaluations
- Cybersecurity Projects & Internships
- Thorough Preparation – Job Interview & Soft Skills
- Facility For Writing Certification Exams

CyberSPAIS Diploma in Information Security (CDIS) – Syllabus

- Module1: Network & Communications Security (40 Hours) – Theory & Lab
  - Security Fundamentals
  - Identity & Access Management
  - Data & Asset Security
  - Practical Cryptography
  - Networking Fundamentals
  - Converged Protocols
  - Multilayer Protocol
  - Securing Network Devices
  - Secure Routing Protocols
  - Switching and Virtual LANs
  - Firewall Architecture & Types
  - Network Segmentation & Microsegmentation
  - Intrusion Detection & Prevention Systems (IDS/IPS)
  - Securing Edge & Fog Computing
  - Wi-Fi, Cellular & Satellite Communications
  - Wireless Attacks
  - Wireless Network Security
  - Content Distributed Networks (CDN)
  - Network Access Control
  - Port Based NAC
  - Proxy Servers
  - Content/URL Filter
  - Endpoint Security (AV, EDR/XDR, HIDPS)
  - Port Security
  - DHCP Snooping
  - Quality of Service (QoS)
  - Secure Voice Communications
  - Remote Access Security
  - Authentication Protocols
  - Virtual Private Networks (VPN) - IPSec
  - Securing Multimedia Collaboration
  - Network Monitoring
  - Network Load Balancing
  - Email Security

- MAC Flooding Attack
- MAC Cloning
- ARP Spoofing & Poisoning
- DHCP Security
- DNS Attacks
- DNS Security
- SNMP Security
- Kerberos Attacks
- Mobile Security
- IoT Security
- ICS/OT Security
- Securing WAN Technologies
- Circuit Switching
- Packet Switching
- Virtual Circuits
- Software Defined Networking (SDN)
- Assessment

- Module 2: Server & OS Security (30 Hours) – Theory & Lab
  - Installing Linux & Windows Server OS
  - Basic Commands & Administration (Linux, Windows)
  - Server Hardening (Linux, Windows)
  - Managing Users & Groups (Linux, Windows)
  - Pluggable Authentication Module (PAM) (Linux)
  - Configuring Secure Password Policy (Linux, Windows)
  - Securing Active Directory (Windows)
  - Configuring Group Policy (Windows)
  - Privileged Account Management (Linux, Windows)
  - File & Directory Permissions (Linux, Windows)
  - Configuring RAID (Linux, Windows)
  - Disk & File Encryption (Linux, Windows)
  - Managing Backups (Linux, Windows)
  - Secure Boot (Linux, Windows)
  - Network Load Balancing & Clustering (Linux, Windows)
  - Patch Management (Linux, Windows)
  - Hardware Security Modules (TPM)
  - Virtualization Security (Linux, Windows)
  - Container Security (Linux, Windows)
  - Endpoint Security (Linux, Windows)
  - Linux Firewalls
  - SELinux
  - Assessment

- Module 3: AWS Cloud Security (30 Hours)
  - Cloud Fundamentals

- Identity & Access Management
- Securing Elastic Compute Cloud (EC2)
- Elastic Load Balancing & Auto Scaling Groups (ELB & ASG)
- Cloud Monitoring (Cloud Watch)
- Amazon S3 Security
- Securing Route 53
- CloudFront
- Global Accelerator
- VPC & Networking Security
- SSL/TLS Encryption
- Key Management System
- Auditing & Logging (CloudTrail)
- Network Flow Capture
- Securing Messaging Services
- GuardDuty
- Security Incident Response
- AWS Security Tools
- Threat Detection and Incident Response
- Security Logging and Monitoring
- Infrastructure Security
- Identity and Access Management
- Data Protection
- Management and Security Governance
- Assessment

- Module 4: Ethical Hacking (CEH) (40 Hours)
  - Introduction to Ethical Hacking
  - Footprinting and Reconnaissance
  - Scanning Networks
  - Enumeration
  - Vulnerability Analysis
  - System Hacking
  - Malware Threats
  - Sniffing
  - Social Engineering
  - Denial-of-Service
  - Session Hijacking
  - Evading IDS, Firewalls, and Honeypots
  - Hacking Web Servers
  - Hacking Web Applications
  - SQL Injection
  - Hacking Wireless Networks
  - Hacking Mobile Platforms
  - IoT Hacking
  - Cloud Computing

- Cryptography
- Assessment

- Module 5: Penetration Testing & Red Teaming (20 Hours)
  - Planning a Penetration Test
  - Introduction to Anonymity
  - Reconnaissance & Information Gathering
  - Open-Source Intelligence (OSINT)
  - Scanning & Enumeration
  - Vulnerability Mapping
  - Exploitation & Gaining Access
  - Social Engineering PenTest
  - Wireless PenTest
  - Network PenTest
  - IAM PenTest
  - System & AD PenTest
  - Web Application PenTest
  - Cloud PenTest
  - Mobile, IoT & OT PenTest
  - Post Exploitation Actions
  - Cleanup & Restoration
  - Penetration Test Reporting
  - Red Teaming & Blue Teaming
  - Assessment
- Module 6: Security Operations Centre (SOC) (40 Hours)
  - SOC Fundamentals
  - SOC Architecture & Processes
  - SOC Roles & Responsibilities
  - SOC Generations & Tools
  - Security Information & Event Management (SIEM)
  - Understanding SIEM Tools (Splunk)
  - Asset & Media Protection
  - Blacklisting & Whitelisting
  - Configuration Management
  - Change Management
  - Patch Management
  - Vulnerability Management
  - CVE, CWE, NVD, SCAP, OWASP Top 10
  - Botnets, DoS & DDoS Attacks
  - DoS & DDoS Protection
  - Firewall, IDS/IPS, DLP
  - Malware Types
  - Antimalware, EDR/XDR
  - Honeypots & Honeynets

- Log Management & Protection
- User Entity Behavior Analytics (UEBA)
- Cyber Kill Chain
- Unified Kill Chain
- MITRE Attack Framework
- Threat Intelligence
- Threat Hunting
- Incident Management
- Automating Incident Response (SOAR)
- Security Investigations & Forensics
- Red & Blue Teaming
- Redundancy & Fault Tolerance
- Assessment

- Module 7: Implementing an ISMS (20 Hours)
  - ISO 27000 Series Overview
  - Introduction to ISO 27001
  - Understanding ISMS Requirements
  - Planning ISMS Implementation
  - Obtain Management Support
  - Determine Scope of ISMS
  - Conduct Gap Analysis
  - Develop Security Policy
  - Competence Requirements
  - Conduct Asset Inventory
  - Risk Assessment (ISO 27005)
  - Monitoring & Evaluation of ISMS
  - Conduct Management Review
  - Corrective Actions & Improvement
  - ISO 27001 Certification Audit
  - Annex A: Security Controls
  - Assessment

- Module 8: Risk Management (10 Hours)
  - Risk Management Fundamentals
  - NIST RMF Overview
  - NIST RMF Steps
    - Prepare
    - Categorize
    - Select
    - Implement
    - Assess
    - Authorize
    - Monitor

- Module 9: Data Privacy Protection (10 Hours)
  - Introduction to ISO 27701
  - ISO 27701 Implementation Steps
  - Data Privacy Overview
  - Privacy Controls
  - Data Security Controls
  - Implementing Privacy
  - Monitoring & Evaluation
  - Certification

- Module 10: Business Continuity & Disaster Recovery (10 Hours)
  - Introduction to NIST SP 800-34
  - Continuity & Contingency Plans
  - Develop Contingency Policy
  - Business Impact Analysis (BIA)
  - Identify Preventive Controls
  - Create Contingency Strategies
  - Develop Contingency Plan
  - Approve & Implement Plan
  - Testing & Maintaining Contingency Plans

- Module 11: Software Development Security (15 Hours)
  - Secure Software Development
  - Agile, DevOps, DevSecOps, CI/CD
  - Software Security Testing
  - Application Attacks & Vulnerabilities
  - OWASP Top 10 Vulnerabilities
  - OWASP Secure Coding Practices
  - OWASP SAMM

- Module 12: Supply Chain Security (15 Hours)
  - Introduction to NIST SP 800-161
  - Critical Success Factors
  - Third Party Security
  - Security Controls
    - Access Control
    - Training & Awareness
    - Audit & Accountability
    - Assessment Authorization & Monitoring
    - Configuration Management
    - Contingency Planning
    - Identification & Authentication
    - Incident Response
    - Maintenance
    - Media Protection

- Physical & Environmental Security
- Planning
- Program Management
- Personnel Security
- PII Processing & Transparency
- Risk Assessment
- System & Services Acquisition
- System & Communications Protection
- System & Information Integrity
- Supply Chain Risk Management

- Module 13: ICS/OT Security (10 Hours)
  - Introduction to NIST SP 800-82
  - Overview of ICS/OT
  - OT Cybersecurity Program Development
  - Risk Management for OT
  - OT Cybersecurity Architecture
  - Applying OT Cybersecurity Framework
  - OT Security Organizations
  - OT Security Tools & Capabilities

- Module 14: Conducting Security Audits (10 Hours)
  - Audit Fundamentals
  - Audit Standards & Certification
  - Audit Roles & Responsibilities
  - Planning The Audit
  - Performing The Audit
  - Audit Report
  - Audit Follow-up

- Capstone Project
- Final Exam
- Certification Preparation
- Soft Skill Preparation
- Interview Preparation
- Issue Course Certificate
- Placement Evaluation & Assistance
