



 THINK BIG . TRAIN SMART . WIN HARD

ALGOFORGE STUDIOS

CYBER SECURITY | COURSE BROCHURE



ALGOFORGE STUDIOS

01

ABOUT

US



AlgoForge Studios is a leading training and AI solutions company specializing in Data Science, Machine Learning, Cybersecurity, Generative AI, and Full-Stack technologies.

We provide industry-focused training, live projects, guaranteed paid internships, and placement support to help learners build strong, job-ready technical skills.



CYBER SECURITY

02



ALGOFORGE STUDIOS



Cyber Security focuses on protecting systems, networks, applications, and data from cyber threats, unauthorized access, and digital attacks. As organizations increasingly rely on technology, safeguarding sensitive information has become essential across every industry.

At AlgoForge Studios, our Cyber Security domain emphasizes building strong foundations in network security, ethical hacking, risk assessment, vulnerability analysis, incident response, and security operations. Learners gain hands-on experience with real-world tools and techniques—preparing them for high-demand careers in defending digital infrastructures and ensuring organizational security.



ALGOFORGE STUDIOS

OUR KEY BENEFITS

- Guaranteed Paid Internship
- Industry-Recognized Certification
- 24/7 Access to Learning Materials
- Dedicated Support System
- Live Projects & Real Client Work
- Placement Assistance
- Expert Trainers (7+ Years Experience)

03



ALGOFORGE STUDIOS

04

COURSES UNDER THIS DOMAIN



**Cyber Security Fundamentals
Course**



**Cyber Security Professional
Course**



**MBA in Cyber Security
Course**



ALGOFORGE STUDIOS

05



CYBER SECURITY FUNDAMENTALS COURSE

- Duration: 8+ weeks
- Mode: Online
- Level: Beginner
- Course Fee: ₹13,500



ALGOFORGE STUDIOS

COURSE CURRICULUM

01

What is Cyber Security?

In this module learn fundamentals of cyber security, confidentiality, principles.

- Security Principle: CIA Triad
- CIA Triad: Confidentiality
- CIA Triad: Integrity
- CIA Triad: Availability
- Quiz Module 1

02

History & Cybersecurity Standards

- Evolution of Cybersecurity
- Cybercrime
- Cyber Security Regulations
- Cyber Security Frameworks
- Quiz Module 2

03

Cyber Threats

- Cybersecurity: What Is Malware?
- Malware: Viruses
- Malware: Spyware
- Malware: Adware
- Social Engineering: Phishing
- How To Spot Phishing
- Phishing Uses
- Specialized Types of Phishing
- SQL Injection
- Types of SQL Injections

06



ALGOFORGE STUDIOS

COURSE CURRICULUM

04

Cryptography, Authentication, & Authorization

- Cryptography
- Symmetric and Asymmetric Encryption
- Hashing
- Rainbow Tables
- Salts
- Authentication & Authorization
- Multi-Factor Authentication (MFA)
- OAuth
- Quiz Module 4

05

Network Security Basics

- OSI Model
- TCP/IP Model
- OSI Layers
- Network Categories
- Network
- Network Protocols
- Network Segmentation
- Access Points
- Wireless Security Standard
- Quiz Module 5

06

Securing Your Personal Devices

- Securing Your Accounts
- Virtual Private Networks (VPNs)
- Software Updates
- Hardening Your Device
- Researching Hardening Techniques
- Quiz Module 6

07



ALGOFORGE STUDIOS

08



CYBER SECURITY PROFESSIONAL COURSE

- Duration: 10+ weeks
- Mode: Online
- Level: Beginner
- Course Fee: ₹60,000



ALGOFORGE STUDIOS

COURSE CURRICULUM

01

Security Essentials

- The need for Cyber Security
- CIA Triad
- Vulnerability, Threat, and Risk
- Risk Governance & Risk Management
- Security Architecture
- Security Governance
- Security Auditing
- Compliance
- Computer Security Architecture & Design
- Quiz Module 1

02

Cryptography

- Background of Cryptography
- Symmetric Cryptography
- Data Encryption Standard (DES)
- Triple-DES
- The Advanced Encryption Standard (AES)
- International Data Encryption Algorithm (IDEA)
- Blowfish
- RC4
- RC5
- RC6
- Asymmetric Cryptography
- The Diffie-Hellman Algorithm

- RSA
- Elliptic Curve Cryptosystems (ECC)
- Cryptographic Hash Functions
- Attacks against Encrypted Data
- Digital Certificates and its Format (X.509, X.500)
- Certificate Authority, Certificate Repository, Certificate Revocation lists
- Digital Certificate life cycle (Initialize, Issue, Cancel)
- Quiz Module 2

09



ALGOFORGE STUDIOS

COURSE CURRICULUM

03

Computer Network & Security

- Network Architecture, Protocols and Technologies:
- Layered Architecture, Open Systems Interconnect (OSI) Model
- Transmission Control Protocol / Internet Protocol (TCP/IP)
- Hybrid TCP/IP Model
- Application Layer Protocols: HTTP, SNMP, DNS, POP, SMTP
- Transport layer protocols: Transmission Control Protocol (TCP), User Datagram Protocol (UDP)

04

Application Security

- Network/Internet layer protocols:
- Internet Protocol (IP) v4, IPv6, IPsec protocols
- Link-layer protocols: Address
- Resolution Protocol (ARP) /
- Reverse ARP / Proxy ARP, Ethernet, VLAN
- Quiz Module 3



ALGOFORGE STUDIOS

COURSE CURRICULUM

05

Data & Endpoint Security

- Data Security
- Data Security Controls
- Host/ Endpoint Security Controls
- Quiz Module 5

06

IdAM (Identity & Access Management)

- Authorization
- Authentication
- Access Control
- Privilege levels
- Identity & Access Management Process and activities (Role-Based, Single Sign-on)
- Quiz Module 6

07

Cloud Security

- Cloud Computing Architectural Framework
- Concerns & Best Practices
- Governance and Enterprise Risk Management
- Legal Issues: Contracts and Electronic Discovery
- Compliance and Audit Management
- Information Management and Data Security
- Interoperability and Portability
- Traditional Security, Business Continuity, and Disaster Recovery

COURSE CURRICULUM



ALGOFORGE STUDIOS

08

Phases of a Cyber Attack

- Data Centre Operations
- Incident Response
- Application Security
- Encryption and Key Management
- Identity, Entitlement, and Access Management
- Virtualization
- Security as a Service
- Quiz Module 7

- Phase 1 — Reconnaissance: Adversary identifies and selects a Target
- Phase 2 — Weaponize: Adversary packages an exploit into a payload designed to execute on the targeted computer/network
- Phase 3 — Deliver: Adversary delivers the payload to the target system
- Phase 4 — Exploit: Adversary code is executed on the target system

- Phase 5 — Install: Adversary installs remote access software that provides a persistent presence within the targeted environment or system
- Phase 6 — Command and Control: Adversary employs remote access mechanisms to establish a command and control channel with the compromised device
- Phase 7 — Act on Objectives: Adversary pursues intended objectives e.g., data exfiltration, lateral movement to other targets
- Quiz Module 8



ALGOFORGE STUDIOS

COURSE CURRICULUM

09

Security Processes in Practice for Businesses

- Key Security Business Processes
- Corp. & Security Governance
- IT Strategy management
- Portfolio/Program/Project management
- Change management
- Supplier (third party) management
- Problem management

10

Complimentary Module Soft Skills Development

- Knowledge management
 - Info-sec management
 - BCP
 - IT Operations management
 - Overview of top 20 security controls
 - Quiz Module 9
- Business Communication
 - Preparation for the Interview
 - Presentation Skills
 - Resume Writing



ALGOFORGE STUDIOS

14



MBA IN CYBER SECURITY COURSE

- Duration: 9+ Weeks
- Mode: Online
- Level: Beginner
- Course Fee: ₹10,500



ALGOFORGE STUDIOS

COURSE CURRICULUM

01

Fundamentals of Cyber Security

- Introduction to CyberSecurity
- Cybersecurity Frameworks & Standards
- Introduction to Virtualisation

02

Introduction to Linux

- Linux Basics
- User & Group Management
- Linux Privilege Management

03

Fundamentals of Networking Methodologies

- Introduction to Networking
- IP Addressing & Subnetting
- Network Topologies & Design



ALGOFORGE STUDIOS

COURSE CURRICULUM

04

Scanning Networks

Learn the techniques & tools for scanning networks, identifying active hosts, & discovering open ports.

- Network Scanning Basics
- Host Discovery & Port Scanning

05

Reconnaissance & Information Gathering

- Foot printing & Reconnaissance
- OSINT [Open Source Intelligence]

06

Vulnerability Assessment

- Introduction to Vulnerability Analysis
- Vulnerability Scanning Tools
- Vulnerability Analysis & Reporting



ALGOFORGE STUDIOS

COURSE CURRICULUM

07

Malware Threats

- Understanding Malwares
- Malware Detection & Analysis
- Malware Prevention & Mitigation

08

System Security Testing

- Password Cracking & Attacks
- Privilege Escalation
- Rootkits & Backdoors

09

Cryptography

- Basic Cryptography Concepts
- Public Key Infrastructure [PKI]
- Cryptography Attacks



ALGOFORGE STUDIOS

COURSE CURRICULUM

10

Network Sniffing

- Packet Sniffing Basics
- Protocol Analysis
- Sniffing Countermeasures

11

Social Engineering

- Understanding Social Engineering
- Social Engineering Techniques
- Social Engineering Prevention

12

Web Server Security Testing

- Automated Web Server Scanning
- Web Application Firewalls [WAF]

18



ALGOFORGE STUDIOS

COURSE CURRICULUM

13

Web App Security Testing

- Web App Security Fundamentals
- Web App Reconnaissance
- Automated Web App Scanning
- OWASP Top 10 Testing

14

Wireless Network Security Testing

- Wireless Networking Basics
- Wireless Encryption Cracking

15

IoT Security Testing

- Introduction to IoT Security
- IoT Protocol Analysis
- Securing IoT Devices

19



ALGOFORGE STUDIOS

COURSE CURRICULUM

16

Cloud Computing Fundamentals

- Cloud Service Models
- Cloud Security Best Practices
- Cloud Specific Threats & Mitigations

17

Mobile Platform Security Testing

- Mobile Security Fundamentals
- Mobile App Security Testing

18

Firewall, IDS, IPS, Honeypots

- Firewall Technologies
- IDS & IPS
- Honeypots & Deception Techniques

20

CAREER OPPORTUNITIES FOR CYBER SECURITY



- Cyber Security Analyst
- Information Security Analyst
- Security Operations Center (soc) Analyst
- Network Security Engineer
- Ethical Hacker / Penetration Tester
- Incident Response Specialist
- Malware Analyst
- Cyber Threat Intelligence Analyst
- Cloud Security Engineer
- Security Compliance & Risk Analyst



ALGOFORGE STUDIOS

WHY CHOOSE ALGOFORGE

AlgoForge Studios stands out as a leading training hub because we combine industry expertise with practical, project-driven learning. All our courses are taught by experienced professionals with strong real-world backgrounds. We focus on hands-on training through live projects, case studies, and real client assignments, ensuring students gain skills that directly meet industry needs. Our programs are powered by advanced infrastructure including NVIDIA DGX A100 systems for high-performance AI and deep learning workloads. We also provide internships, placement support, personalized mentorship, and portfolio-building guidance to help students confidently begin their careers. With flexible learning options, an updated curriculum, and affordable fees, AlgoForge Studios offers a complete, career-focused pathway for anyone looking to excel in tech.



ALGOFORGE STUDIOS

GET IN TOUCH WITH US

Thank you for joining us on this journey through innovation and technology. For further inquiries or collaborations, please feel free to contact us



+91 77548 - 97333



algoforgestudios.in



enquiry@algoforgestudios.com