



CYBER SECURITY & ETHICAL HACKING BROCHURE

About Glowlogics

Glowlogics is a **government-verified MSME and Startup India-recognized company offering ISO-certified internships. In partnership with Techfest IIT Bombay, E-Cell IIT Hyderabad** we are committed to fostering innovation and skill development, providing practical, industry-relevant education in Cybersecurity and Ethical Hacking to prepare learners for the dynamic digital world.

Why Study Cybersecurity?

In an increasingly digital world, cyber threats are evolving rapidly, putting organizations' data, networks, and infrastructure at constant risk. This growing challenge has created a high demand for skilled cybersecurity professionals. Building a career in cybersecurity today means stepping into a fast-growing, essential field with vast opportunities to protect and secure the digital future

Why Glowlogics ?

- Top-Notch Training: Learn from industry experts.
- Flexible Learning Modes: **Self-paced, live, and blended.**
- Career Support: Job Assistance programs, resume building, and interview preparation.
- Global Recognition: Courses aligned with industry certification standards.

Curriculum Overview

✓ Module 1: Introduction to Cybersecurity (2 Hours)

- What is Cybersecurity? Importance in today's digital world
- Types of cyber threats: Malware, Phishing, Ransomware, Social Engineering
- Real-world breaches and lessons learned

✓ Module 2: Basics of Networking & Network Security (4 Hours)

- Fundamentals of computer networks (IP, DNS, TCP/IP)
- Securing networks: Firewalls, IDS/IPS, VPNs
- Wireless security practices and tools
- Common network attacks and prevention

✓ Module 3: Cryptography & Data Protection (3 Hours)

- Basics of Encryption: Symmetric & Asymmetric
- Hashing, Digital Signatures, SSL/TLS
- Introduction to Public Key Infrastructure (PKI)



Module 4: Ethical Hacking & Penetration Testing (6 Hours)

- Understanding ethical hacking and legal aspects
- Footprinting and reconnaissance techniques
- Scanning networks (Nmap, Zenmap)
- Gaining access: Exploiting vulnerabilities (Metasploit basics)
- Web application testing (Burp Suite intro)
- Hands-on lab: Simulated attack & defense



Module 5: Cyber Attack Detection & Incident Response (4 Hours)

- Stages of cyber attacks (Kill Chain)
- How to detect intrusions & anomalies
- Incident response steps: identification, containment, eradication
- Introduction to digital forensics basics



Module 6: Advanced Cybersecurity Concepts (4 Hours)

- Cloud security essentials
- IoT & mobile security threats
- Social engineering defenses
- Role of AI/ML in cybersecurity
- Cybersecurity career roadmap & certifications (CEH, CISSP, CompTIA)

Tools, Languages, Platforms



Python



SQL



Javascript



Owasp



Burpsuite



NMAP



Metasploit



Testfire.net

Sample Projects

These are sample projects only. Unique capstone projects will be discussed in the live class

1. Password Strength Analyzer

- Skills Involved: Scripting, password policies, regular expressions.
- Description: Students can create a program that checks the strength of user-generated passwords, considering factors like length, complexity, and use of special characters. The program should provide feedback on how to strengthen weak passwords.

2. Setting Up a Firewall (Using pfSense)

- Skills Involved: Network security, firewall configuration, packet filtering.
- Description: Students can install and configure an open-source firewall (like pfSense) on a virtual machine or physical machine, setting up rules to block or allow specific network traffic.

3. Simple Vulnerability Scanner

- Skills Involved: Python scripting, network scanning, basic vulnerability assessment.
- Description: Students can write a Python script to scan for open ports and check for known vulnerabilities (e.g., using libraries like socket or nmap). The scanner can provide a basic report on any identified vulnerabilities.

4. Phishing Email Simulation

- Skills Involved: Social engineering, email security, phishing techniques.
- Description: Students can create a controlled phishing simulation to test their peers' or a system's awareness of phishing attacks. This project will help them understand phishing techniques and how to recognize and prevent them.

5. Data Encryption and Decryption Tool

- Skills Involved: Cryptography, encryption algorithms (e.g., AES, RSA).
- Description: Students can develop a tool to encrypt and decrypt messages or files using basic encryption techniques. They can explore different algorithms and compare their efficiency and security levels.

6. Brute Force Attack Simulation

- Skills Involved: Python/JavaScript scripting, attack mitigation, password security.
- Description: Build a script that performs a brute force attack on a login system (within a controlled environment). This project can also include building defense mechanisms to prevent brute force attacks, like limiting login attempts.

Career Opportunities

By completing this program, you can explore roles such as:

- Cybersecurity Analyst
- Network Security Engineer
- Ethical Hacker
- Digital Forensics Expert
- Security Consultant
- Information Security Manager

Hiring Companies:

Our graduates have found opportunities at top companies like:

- FireEye (now Trellix)
- CrowdStrike
- Fortinet
- Symantec (part of Broadcom)
- Check Point Software Technologies
- McAfee



75,000+
Students



1:1 Personalized
Mentorship



Taught by
Industry Experts

Certificates





Get Started Today!

Contact Us:

Ready to take your career to the next level?

Contact us to learn more about our courses, flexible payment plans, and how we can help you achieve your career goals.

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