



PYTHON TRAINING

Python For Cyber Security

Master Python scripting to enhance your cybersecurity defense and offensive skills.

DURATION

2 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

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COURSE OVERVIEW

Unlock the power of Python to fortify digital defenses with our 'Python For Cyber Security' intermediate course. This specialized program is meticulously designed for IT professionals and aspiring cybersecurity experts who wish to leverage Python's versatility to automate security tasks, develop custom tools, and analyze system vulnerabilities. You'll delve into the practical application of Python for network scanning, penetration testing, cryptographic operations, and incident response, gaining hands-on experience with libraries like Scapy, Requests, Cryptography, and more. This course transforms theoretical knowledge into actionable skills, enabling you to build robust security scripts and enhance your organization's cybersecurity posture. By mastering Python in a cybersecurity context, you'll gain a critical advantage in the rapidly evolving threat landscape. The curriculum emphasizes practical, real-world scenarios, teaching you to write scripts for automating reconnaissance, exploiting common web vulnerabilities, creating secure communication channels, and parsing security logs efficiently. This comprehensive approach ensures you are not just a user of security tools, but a creator and customizer of effective solutions, making you an invaluable asset in any security team. Equip yourself with the coding prowess needed to proactively defend against cyber threats and respond swiftly to incidents.

Duration	2 hours
Level	Intermediate
Vendor	Python

COURSE CURRICULUM

01 Module 1: Python Fundamentals for Security

- Review of Python basics (data types, control flow, functions)
- Setting up a secure Python environment
- Basic scripting for file manipulation and process management
- Introduction to security best practices in Python coding

02 Module 2: Network Reconnaissance & Scanning

- Socket programming for network communication
- Developing custom port scanners (TCP/UDP)
- Using Scapy for packet crafting and sniffing
- Implementing network mapping and discovery scripts

03 Module 3: Web Application Security Scripting

- HTTP requests and responses with the 'requests' library
- Automating web vulnerability scanning (e.g., XSS, SQLi detection basics)
- Brute-forcing web forms and authentication
- Web scraping for intelligence gathering

04 Module 4: Cryptography & Forensics with Python

- Understanding cryptographic primitives (hashing, encryption)
- Implementing basic encryption/decryption with Python's 'cryptography' library
- Password cracking concepts and basic script development
- File system forensics utilities in Python

05 Module 5: Malware Analysis & Automation

- Introduction to static and dynamic malware analysis concepts
- Automating sandbox interaction and report parsing

- Developing scripts for log file analysis and anomaly detection
- Creating simple reverse shell scripts (for educational purposes only)

06 Module 6: Advanced Scripting & Tool Development

- Building command-line interface (CLI) tools with 'argparse'
- Integrating with security APIs (e.g., VirusTotal, Shodan)
- Developing custom exploits and proof-of-concepts (ethical considerations)
- Best practices for developing maintainable and secure security tools

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Security Automation Engineer**
- > **Junior Penetration Tester/Ethical Hacker**
- > **Cybersecurity Script Developer**

FREQUENTLY ASKED QUESTIONS

Q: How does this course specifically enhance my career as a cybersecurity analyst or open doors to new roles within the field?

This course directly equips cybersecurity professionals with the programming skills to move beyond simply using off-the-shelf tools. You'll learn to develop custom scripts for automating repetitive tasks, create specialized reconnaissance tools, build incident response utilities, and even craft proofs-of-concept for identified vulnerabilities. This capability is highly sought after for roles like Security Automation Engineer, Junior Penetration Tester, or Cybersecurity Script Developer, enabling you to be a proactive solution creator rather than just a responder.

Q: What are the prerequisites for this 'Python For Cyber Security' course, specifically regarding Python experience and cybersecurity knowledge?

This is an intermediate-level course, meaning a foundational understanding of Python syntax, data structures, and control flow is essential. While we'll briefly review Python basics, the course quickly moves into security-specific applications. Additionally, a basic grasp of networking concepts (e.g., TCP/IP, common ports) and general cybersecurity principles (e.g., types of attacks, vulnerabilities) will be highly beneficial for maximizing your learning experience.

Q: Will I be able to build my own cybersecurity tools or scripts by the end of this course, and how practical will these skills be in a real-world environment?

Absolutely. A core objective of this course is to empower you to build practical, custom cybersecurity tools and scripts. You will gain hands-on experience in developing port scanners, web vulnerability detection scripts, network sniffers, and even basic cryptographic utilities. These skills are incredibly practical, allowing you to tailor solutions to specific organizational needs, automate security operations, and perform more effective and efficient penetration testing, making you a highly valuable asset in any security team.

ABOUT COMPUTER PRIDE

**East Africa's Premier IT Training Center**

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

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50+

Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

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