

Become a *Cyber Analyst*



Cybersecurity Syllabus

Table of contents

Career Training

Our 7-month intensive training program will equip you with the essential cybersecurity analyst skill set and get you job-ready. You will learn cybersecurity fundamentals, get hands-on experience, and develop a stellar portfolio with real-world experience sourced from the world's leading cybersecurity companies.

<i>Tech Foundations</i>	3
<i>Cyber, Windows, and Linux</i>	4
<i>Networking and Cryptography</i>	5
<i>Windows Administrator</i>	6
<i>Cybersecurity Beginner</i>	7
<i>Cybersecurity Intermediate</i>	8
<i>Cybersecurity Advanced</i>	9

Career Accelerator

After your technical training, you will join the Career Accelerator until you find a job. You will focus on searching for a job in Cybersecurity while participating in extensive career workshops and benefiting from one-on-one mentorship sessions. You will also continue to develop your technical skills and gain more experience.

Endless Career Growth

Our goal is to ensure that you build an inspiring career. This means we're here for you even after being hired for your first role. As our graduate, you will become a part of our vibrant alumni community, gain access to exclusive events and workshops, and get the undivided support of our team whenever you start thinking about the next step in your career journey.

Tech Foundations

During the first unit of our program, we will lay the groundwork with the tech fundamentals you need to succeed. Learn programming with Python, practice algorithmic thinking, and complete your first coding project. In addition, this unit will teach you time management skills, touch typing, and how to use keyboard shortcuts to work effectively.

Sprint 1 Programming with Python 1

Sprint 2 Programming with Python 2

Sprint 3 Your first coding project

Sprint 4 Practice Week

Concepts covered:

- Python
- Problem Solving
- Algorithmic Thinking
- Time Management
- Touch Typing
- Keyboard Shortcuts

Cyber, Windows, and Linux

This unit journeys from the dawn of cybercrime to modern threats while emphasizing the importance of cybersecurity and its terminologies. You will understand hackers, cyber-attacks, and the potency of social engineering. We then explore Windows and Linux operating systems. We focus on the desktop, NTFS File System, UAC, and troubleshooting for Windows. For Linux, we delve into file permissions, text editors, utilities, processes, package management, and log files, thus highlighting the importance of securing digital infrastructures.

- Sprint 1** Security Foundations
- Sprint 2** Windows Foundations
- Sprint 3** Linux Navigation and Commands
- Sprint 4** Practice Sprint

Concepts covered:

- The World's First Cyber Crime
- What is Cybersecurity?
- Cybersecurity Terminology
- Why Cybersecurity Matters
- Hackers and Cyber Attacks
- The Power of Social Engineering
- Introduction to The Windows Operating System
- Troubleshooting Windows
- Windows Desktop, The NTFS File System, UAC, and the Control Panel
- Introduction To Linux
- Flags, Permissions, and the Filesystem
- Text Editors, Utilities, Processes, Package Management, and Logs

Networking and Cryptography

This unit is a comprehensive journey into network fundamentals, protocols, security, and the cornerstones of cryptography. It begins with an overview of basic networking, types of networks, and networking devices, underpinned by a deep dive into the OSI and TCP/IP models. This unit navigates through the world of network security, emphasizing security protocols and network monitoring. Simultaneously, it unravels cryptography, covering encryption types, hashing, digital signatures, and the Public Key Infrastructure. By the conclusion of this module, participants will possess the knowledge and skills to secure computer networks effectively.

- Sprint 1** Networking Foundations
- Sprint 2** Cryptography
- Sprint 3** Network Protocols, Security, and Monitoring
- Sprint 4** Practice Sprint

Concepts covered:

- Basics of networking
- OSI and TCP/IP Models
- Networking devices
- Types of Networks
- Network protocols
- Basics of cryptography and encryption
- Encryption Types
- Hashing and Digital signatures
- Public Key Infrastructure
- Network Security
- Security Protocols
- Network Monitoring

Windows Administrator

Here, we will be starting with an introduction to PowerShell; you will learn the basics of scripting and how to apply PowerShell for effective Windows administration. This is complemented by a deep dive into Windows Administration Tools, where you will gain hands-on experience in their practical usage, with a specific emphasis on the integral role of Active Directory. A key element of this unit is the exploration of system logs and the crucial insights they provide into system operations and security incidents. You will learn the best-practice security measures, how to enhance system defense, and effectively troubleshoot potential issues.

- Sprint 1** Windows Administration - PowerShell
- Sprint 2** Windows Administration Tools
- Sprint 3** System Logs
- Sprint 4** Practice Sprint

Concepts covered:

- Introduction to PowerShell
- PowerShell Scripting
- Windows Administration with PowerShell
- Introduction to Windows Administration Tools
- Windows Administration Tools Practical Usage
- Active Directory
- System Logs in Windows
- Security Practices
- Troubleshooting and Best Practices

Cybersecurity Beginner

This unit will explore various topics, including types of malware, social engineering attacks, Advanced Persistent Threats, and insider threats. The unit also covers threat intelligence and hunting, vulnerabilities and exploits, penetration testing techniques, and secure application development. Important frameworks and guidelines for physical security, secure network architecture concepts, secure staging deployment concepts, and cloud and virtualization concepts are included. You will learn how to proactively secure networks and systems throughout this unit, using various tools and methodologies to prevent, detect, and mitigate security threats.

- Sprint 1** Threats, Attacks, and Vulnerabilities
- Sprint 2** Architecture and Design
- Sprint 3** Implementing Secure Network Architecture
- Sprint 4** Practice Sprint

Concepts covered:

- Types of Malware
- Social Engineering Attacks
- Advanced Persistent Threats
- Vulnerabilities and Exploits
- Frameworks, Guidelines, and Physical Security
- Secure Network Architecture Concepts
- Secure Systems Design
- Secure Staging Deployment Concepts
- Secure Application Development and Deployment
- Secure Communication Channels
- Network Configuration Management

Cybersecurity Intermediate

This unit delves into critical areas of cybersecurity, starting with Identity Management and Access Controls, exploring how they intertwine with common account practices. We then examine the importance of structured Policies, Plans, and Procedures alongside Business Impact Analysis and Risk Management. This informs our study of Incident Response Procedures, which are essential for effectively tackling breaches. Finally, we demystify Cryptography, discussing key algorithms, Public Key Infrastructure, and Cryptographic Attacks. This comprehensive study equips learners with a robust understanding and practical insight into cybersecurity, empowering them to safeguard digital landscapes confidently and competently.

Sprint 1 Identity and Access Management

Sprint 2 Risk Management

Sprint 3 Cryptography and PKI

Sprint 4 Practice Sprint

Concepts covered:

- Identity Management Concepts
- Identity and Access Management Controls
- Common Account Management Practices
- Business Impact Analysis Concepts
- Risk Management Processes and Concepts
- Incident Response Procedures
- Cryptographic Algorithms
- Public Key Infrastructure
- Cryptographic Attacks

Cybersecurity Advanced

This unit will navigate the dynamics of Incident Response Management, Digital Forensics, and Disaster Recovery, complemented by a comprehensive understanding of legal and regulatory facets of cybersecurity. Further, we will explore risk management strategies, evolving technologies like IoT, Mobile, and Cloud Virtualization, and cybersecurity trends. This multidisciplinary approach culminates in a complete readiness to handle security challenges, empowering learners to safeguard digital environments effectively and proactively in the face of rapidly evolving threats.

- Sprint 1** Operations and Incident Response
- Sprint 2** Governance, Risk, and Compliance
- Sprint 3** Emerging Technologies and Trends
- Sprint 4** Practice Sprint

Concepts covered:

- Incident Response Management
- Disaster Recovery and Business Continuity
- Legal and Regulatory Concepts
- Privacy Concepts
- Risk Management
- Security Awareness and Training
- IoT and Embedded Systems
- Mobile, BYOD, and Small Form Factor Devices
- Cloud and Virtualization

Career acceleration to land your first Cybersecurity role, and beyond.

During the Career Accelerator, you will be actively looking for your first full-time Cybersecurity role. You will be learning everything you need to know about how to get hired for your dream job at a top tech company, while continuing to develop your technical and soft skills. Our goal here is to make you the ideal candidate for the role you are after, and to help you start your career as early as possible.



Career Workshops

Participate in extensive live workshops that are focused on developing your “elevator pitch”, activating your personal and professional networks, learning job search and salary negotiation strategies, setting weekly goals, and more.

Squad Sessions

Join a Squad of a small number of your fellow students for weekly group sessions to share advice and drive each other forward. Squad Leaders are industry experts who bring their squad members from being job-ready to getting hired. You will meet your Squad Leader in Squad meetings and 1:1 sessions.

Advanced Learning

Continuous advanced training to keep sharpening your skills and expanding your experience and expertise, with additional challenges and projects to add to your portfolio. Topics include: Cloud Fundamentals, Application Security, Scripting for Security, Attacker Mindset, Purple Team.

Interview Preparation

Master your industry technical proficiency and your personal interviewing skills through taking part in live mock-interview simulations and receiving insightful, personal feedback from industry experts.

Job Search Toolkit

Be a pro candidate by tracking your opportunities, managing your job interview process, building your portfolio, and showcasing your projects with the best tools on the market to organize and accelerate your job search.

Our Career Week

Attend our Career Week, where you'll be able to meet representatives from leading tech companies that are looking to hire our graduates.

