

# Study Cybersecurity with the Wake Forest University Cyber Bootcamp

Learn to protect and defend networks with the Wake Forest University Cyber Bootcamp powered by Fullstack Academy.

- Add in-demand cyber skills to your resume
- Kick-start or upskill a lucrative cybersecurity career
- Get job search support to help you get hired
- Learn using an industry-driven curriculum and interactive labs
- Receive preparation for the CompTIA Security+ certification exam\*



## Curriculum

Cybersecurity Fundamentals	Learn the fundamentals of cybersecurity and virtualization technologies while building a security mindset.	<ul style="list-style-type: none"> <li>• Orientation</li> <li>• The security mindset</li> <li>• Confidentiality, integrity and availability (CIA) triad</li> <li>• Threats, vulnerabilities, and risks</li> <li>• Virtualization</li> </ul>
Asset and Inventory Management	Gain a working knowledge of the Linux operating system (OS) as you learn knowledge and skills to apply throughout bootcamp and your career.	<ul style="list-style-type: none"> <li>• Linux Command Line</li> <li>• File systems</li> <li>• Users and groups</li> <li>• Bash scripting</li> </ul>
Career Simulation 1	Put your cybersecurity skills to the test as a SOC Analyst 1 for a fictitious company, where you'll work to solve and report a configuration file problem.	<ul style="list-style-type: none"> <li>• Modifying configuration files</li> <li>• Identifying configuration file recommendations</li> </ul>
Network Systems	Understand the mechanics of how network connected devices transmit and receive data.	<ul style="list-style-type: none"> <li>• Networking</li> <li>• Wireshark</li> <li>• Encoding and encryption</li> <li>• Open Systems Interconnection model (OSI model)</li> <li>• Firewalls</li> </ul>
Programming with Python	Explore Python, a versatile programming language that can be used for a multitude of cybersecurity functions, including malware analysis, scanning, penetration testing tasks, and more.	<ul style="list-style-type: none"> <li>• Variables, loops, and conditionals</li> <li>• String and list methods</li> <li>• Dictionaries</li> <li>• Regular expressions</li> <li>• Log parsing</li> </ul>

Please note that this is a sample curriculum and is subject to change.

\*Students will receive a voucher for one CompTIA Security+ exam attempt.

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System Administration	Become a Windows and PowerShell powerhouse by learning to identify and address security concerns for operating systems.	<ul style="list-style-type: none"> <li>Windows administration and management</li> <li>Active directory</li> <li>Group policy</li> </ul>
Career Simulation 2	Implement a new onboarding process as part of a simulated exercise in new user configuration.	<ul style="list-style-type: none"> <li>Configure new users and their computers</li> </ul>
Red Team (Offense)	Gain offensive security skills to protect computer systems, networks, individuals, and their data from attacks.	<ul style="list-style-type: none"> <li>Web vulnerabilities</li> <li>Penetration testing</li> <li>OWASP Top 10</li> <li>Social engineering</li> <li>Burp Suite</li> <li>Cross-site Scripting</li> <li>SQL injection</li> <li>Metasploit</li> </ul>
Career Simulation 3	Practice offensive security and run a mock penetration test.	<ul style="list-style-type: none"> <li>Offensive security</li> <li>Penetration testing</li> </ul>
Blue Team (Defense)	Secure companies against data breaches and attacks by becoming familiar with cybersecurity defense and Security Information and Event Management (SIEM) solutions.	<ul style="list-style-type: none"> <li>Logs/log analysis</li> <li>Splunk and Security information and event management (SIEMs)</li> <li>Digital forensics</li> <li>NIST Cybersecurity Framework</li> <li>Incident response</li> <li>Cloud Foundations</li> </ul>
Career Simulation 4	Choose a real-world scenario and solution related to blue or purple team concepts.	<ul style="list-style-type: none"> <li>Critical thinking and evaluation</li> </ul>
Career Success	Throughout bootcamp and beyond you'll receive career preparation assistance and job search support.	<ul style="list-style-type: none"> <li>Build a technical resume and craft cover letters</li> <li>Optimize your LinkedIn profile and network within the industry</li> <li>Interview and negotiation training</li> </ul>

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