

Welcome to the NCC Network+ Course

We are excited to have you join us for this Network+ certification course, where you will start you on the path to gain essential cybersecurity skills that are highly valued in the industry. Our course syllabus is designed to keep you on track with weekly topics and activities, ensuring you are well-prepared for both the Security+ certification exam and a successful career in cybersecurity.

INSTRUCTOR INFORMATION

Your instructor for this course is **Arthur Thompson**, who brings 30 years of extensive experience in IT, Networking, and Systems Engineering. Arthur holds a wide range of industry-recognized certifications, including CCNA, CCDA, CCDP, A+, IT Fundamentals, Sec Pro, Network Pro, and DAWIA Level 3 (IT, Systems Engineering, and Program Management). Arthur has been an instructor at the NCC for four years.

CLASS SCHEDULE

This course will meet Monday and Wednesday from 5:30 PM to 8:00 PM. During the class, you will work through the curriculum, which includes Testout and CompTIA Cert Master materials, as well as two engaging "Try Hack Me" activities. Throughout the course, you'll also have opportunities to hear from guest speakers and participate in NCC's First Friday events. Please keep in mind that the schedule might be adjusted slightly based on the instructor's discretion, but the syllabus will serve as your primary guide.

MEET & GREET

To kick off the course, we invite you to a meet-n-greet with your instructor, Art Thompson, and fellow classmates on January 10th at 5:30 PM at the NCC. This will be a great opportunity to ask any questions, get to know your peers, and enjoy some light refreshments.

WHAT TO EXPECT

The Network+ certification focuses on ensuring that you have the necessary skills to design, manage, and troubleshoot both wired and wireless networks. Topics include network infrastructure, security, cloud computing, and emerging technologies such as virtualization. It prepares you to handle a variety of networking tasks, including configuring, managing, and troubleshooting networks.



TESTOUT AND COMPTIA

The course will also delve into real-world scenarios through simulated labs using Testout, providing you with hands-on experience that mirrors actual cybersecurity environments.

- Testout: This platform offers online training and simulated labs to give you practical experience. It aligns with the Security+ certification exam to ensure you're prepared for the real-world challenges in the cybersecurity field.
- CompTIA: As a global leader in IT certifications, CompTIA partners with Testout to provide top-tier content and training. This course will help you build a strong foundation in cybersecurity and prepare you for the CompTIA Security+ certification, which is highly valued by employers worldwide.

SUPPORT & SUCCESS

Throughout the course, we want to ensure you feel supported and prepared. In addition to the course material, you will have access to our Graduate Success Pack, which includes a resume workshop, mock interviews with industry leaders, and NCC-branded swag to help you take the next step in your cybersecurity career. You can pick up your backpack at the Meet & Greet.

We look forward to your success in this course and can't wait to see the cybersecurity professionals you will become! If you have any questions, feel free to reach out to your instructor, Bill Blatchley, or Alexia Thompson at the NCC for further assistance. You are on the path to a rewarding and impactful career in cybersecurity, and we are here to guide you every step of the way.

Welcome once again, and best of luck!

Warm regards,

The National Cybersecurity Center Team

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Week	Date	Testout/CompTIA Topics	Cert Master Topics	Notes
Week 1	13-Jan	Introduction: Network Pro Overview, Network Basics (OSI Model, Topologies, Protocols)	Explaining Network Topologies	Guest Speaker Aleta Jeffress, CEO , National Cybersecurity Center. First Friday Jan 10th
Week 2	20-Jan	Cables and Connectors: Twisted Pair, Fiber Optic, Wiring Implementation	Supporting Cabling and Physical Installations	Hack the Box Activity Demonstration by Nicholas O., UCCS
Week 3	27-Jan	Networking Devices: Network Adapters, Internetwork Devices	Configuring Interfaces and Switches	Hack the box solved and walkthrough
Week 4	3-Feb	Ethernet: Ethernet Specifications, Connect Network Devices, Troubleshoot Physical Connectivity	Configuring Network Addressing	First Friday Feb. 7th
Week 5	10-Feb	IP Configuration: DHCP, DNS, IP Version 6, Troubleshoot IP Configuration and Communications	Configuring Routing and Advanced Switching	
Week 6	17-Feb	Switch Management: Switch Access, IP Configuration, VLANs, Trunking, Troubleshoot	Implementing Network Services	
Week 7	24-Feb	Routing: Routing Basics, Routing Protocols, Troubleshoot Routing	Explaining Application Services	



Week 8	3-Mar	Firewalls: Firewalls Design and Implementation, Security Appliances	Supporting Network Management	Guest Speaker Pending First Friday Mar 7th
Week 9	10-Mar	Network Customization: Network-Based Storage, Virtualization, Cloud Computing	Explaining Network Security Concepts	
Week 10	17-Mar	Wireless Networking: Wireless Standards, Configuration, Design, Security, Troubleshooting	Applying Network Security Features	
Week 11	24-Mar	Wide Area Networks: WAN Concepts, Internet Connectivity, Remote Access	Supporting Network Security Design	Guest Speaker Rodney Gullate Jr., CEO , Firma IT Solutions and Services
Week 12	31-Mar	Network Policies and Procedures: Network Design, Risk Management, Security Policies	Configuring Wireless Networks	First Friday Apr 4th
Week 13	7-Apr	Network Security : Physical Security, Social Engineering, Network Vulnerabilities and Threats	Comparing Remote Access Methods	
Week 14	14-Apr	Network Hardening: Detection and Prevention, Penetration Testing, Network Hardening	Summarizing Cloud Concepts	Guest Speaker Lt. Gen. Harry Raduege, USAF (Ret.) , Senior Partner, Elara Nova



Week 15	21-Apr	Network Management: Update Management, Data Protection, SNMP, Remote Management	Network Sandbox
Week 16	28-Apr	Network Optimization: Troubleshooting Methodology, Optimization	CompTIA Network+ Practice Exams First Friday May 2nd
Week 17	5-May	Practice Exam	
Week 18	12-May	Take CompTIA Exam	

