

JROTC Cyber Curriculum Map Years 1-4

Year 2 180 Total Class Hours	The course begins with fundamental JROTC Leadership Training. This course delves into the more technical aspects of the field, providing a firm foundation in network architecture and security. Students also learn about cybersecurity crime and cybersecurity law, while tying these concepts to citizenship and government. The course ends with a Python programming bootcamp and a service learning capstone project that focuses on leadership skills and team building. This course covers topics associated with CompTIA Network+ certification.		
46 hours	JROTC Leadership Education Training <ul style="list-style-type: none"> ● Leadership ● Careers ● Communicating and Working as a Team ● Ethics ● Decision making ● Citizenship and government 		
7 hours	Cybersecurity Ethics, Crime & Cybersecurity Law <ul style="list-style-type: none"> ● Ethics review ● Types of cyber crime ● Common cybersecurity legislation 	F.CSF.t16 F.CSF.t17	
5 hours	Physical Security <ul style="list-style-type: none"> ● Perimeter security ● Access control ● Process management ● Tamper detection 	F.CSF.t02	Network+ 4.1
5 hours	Networking Policies and Best Practices <ul style="list-style-type: none"> ● Employee policies and practices ● Export control ● System life cycle ● Safety ● Incident response 	F.CSF.o04 F.CSF.t15	Network+ 3.5
7 hours	Authentication and Access Control <ul style="list-style-type: none"> ● Authorization ● Authentication ● Accounting ● Access control (include classification, access, transporting, & destroying) 		Network+ 4.2
7 hours	Networking Topologies and Technologies <ul style="list-style-type: none"> ● OSI layer ● Network topologies ● Network device installation and configuration 	F.ISC.t01 F.ISC.t03 F.ISC.t05 F.ISC.t16	Network+ 1.2 3.1 1.5 2.2

JROTC Cyber Curriculum Map Years 1-4

7 hours	Advanced Networking Technologies	F.CSF.t14	Network+ 2.3
3 hours	Cabling Solutions <ul style="list-style-type: none"> Media types Connector types Transceivers Standards 		Network+ 2.1
7 hours	IP Addressing <ul style="list-style-type: none"> Numbering systems Classes Subnetting IPv4 versus IPv6 		Network+ 1.4
5 hours	Ports and Protocols <ul style="list-style-type: none"> Protocols and ports Protocol types 		Network+ 1.1
5 hours	Remote Access		Network+ 3.4
7 hours	Routing & Switching <ul style="list-style-type: none"> Properties Segmentation Routing Performance Switching types 		Network+ 1.3
7 hours	Network Services <ul style="list-style-type: none"> Domain Name Service Dynamic Host Configuration Protocol Network Time Protocol IP Address Management 	F.ISC.t09 F.CSF.o03	Network+ 1.8
5 hours	Network Troubleshooting Tools and Techniques <ul style="list-style-type: none"> Common networking attacks Common network service issues Troubleshooting methodology Troubleshooting hardware tools Troubleshooting software tools Connectivity and performance issues 		Network+ 4.4 5.5 5.1 5.2 5.3
5 hours	Network Monitoring, Patching, and Hardening <ul style="list-style-type: none"> Processes 	F.CSF.t02 F.ISC.t12 F.ISC.t13	Network+ 3.3

JROTC Cyber Curriculum Map Years 1-4

	<ul style="list-style-type: none"> • Event management • Metrics 		
5 hours	<p>Common Mitigation Techniques</p> <ul style="list-style-type: none"> • Device hardening • Switch port protections • Network segmentation • Least privilege/separation of duties • Honeypot/honeynet • Penetration testing 	F.ISC.t12 F.ISC.t12a	Network+ 4.5 4.6
5 hours	<p>Virtualization & Cloud Computing</p> <ul style="list-style-type: none"> • Virtual networking • Cloud computing 	F.ISC.t02 F.ISC.t03a F.ISC.t03b	Network+ 2.4
5 hours	<p>Wireless Networking</p> <ul style="list-style-type: none"> • Protocols/ standards • Hardening • WAN technologies • Troubleshooting 		Network+ 4.3 1.6 2.5 1.6 5.4
5 hours	<p>Business Continuity and Disaster Recovery</p>	F.CSF.t02	Network+ 3.2
20 hours	<p>Programming (Python)</p>		
12 Hours	<p>JROTC Leader Education Training & Capstone project</p> <ul style="list-style-type: none"> • Evaluating a service learning experience • Three types of service 		