

CYBERSECURITY AND NETWORK ADMINISTRATION (CNA)

CNA 100 Introduction to Networking 5 Credits

Introduces foundational concepts designed to prepare the student for more advanced networking concepts. Introduces terms and technologies commonly seen in a computer network.

Prerequisite: Prerequisite: Eligible for Math 92 and ENGL 90

CNA 101 Cisco I 5 Credits

Covers network architecture and function. Introduces protocol communication, network configuration and troubleshooting.

Prerequisite: Prerequisite: Completion of CNA 100.

CNA 112 PC Workstation Technical Support 5 Credits

Provides instruction on complete tear down and reassembly of PC Workstations including software configuration and troubleshooting of common hardware installation issues.

Prerequisite: Prerequisite: Eligible for Math 92 and ENGL 90

CNA 113 PC Operating Systems 3 Credits

Introduces PC operating systems with an emphasis on support user software, operating systems, basic networking concepts, troubleshooting, and diagnostics.

Prerequisite: Prerequisite: Eligible for Math 92 and ENGL 90

CNA 120 Command Line Interface 5 Credits

Introduces the use of the Windows command line and PowerShell interfaces to manage and manipulate Windows Operating systems.

Prerequisite: Prerequisite: Eligible for Math 92 and ENGL 90

CNA 121 Microsoft Workstation 5 Credits

Expands student understanding of operating systems through focused study of the Windows Client OS within Client-Server networks. Prepares students for Microsoft Desktop certification.

Prerequisite: Prerequisite: CNA 113 or instructor's permission.

CNA 122 Microsoft Server 5 Credits

Introduces the Microsoft Windows server operating system and Microsoft Client-Server networks. Includes implementation of a core Windows Server Infrastructure into host and compute environments.

Prerequisite: Prerequisite: CNA 120 or instructor's permission.

CNA 130 Introduction to Linux/Unix 5 Credits

Introduces Linux operating systems from the perspective of a new user. Covers how to install, maintain, and configure a Linux operating system. Explores the shell interface, utilities, and basic characteristics of the operating system.

Prerequisite: Prerequisite: Eligible for Math 92 and ENGL 90

CNA 150 Cisco II 5 Credits

Covers the architecture, components, and operations of Cisco routers and switches in a small network. Includes configuration of routers and switches for basic functionality.

Prerequisite: Prerequisite: Eligible for MATH 092 and ENGL 090, CNA 101.

CNA 197 Intro to Ethical Hacking 5 Credits

Explores cybersecurity concepts related to ethical hacking and penetration testing. Emphasizes Red Team vs. Blue Team cybersecurity with focus on the offensive Red Team. Covers introductory topics from the CompTIA PenTest+ and EC-Council CEH certifications.

Prerequisite: Prerequisite: Completion of CNA 101 and CNA 120 or CNA 130, and CNA 121 or CNA 122

CNA 210 Introduction to Network Security 5 Credits

Introduces network security concepts and terms from a global perspective. Explores a wide range of security topics including managerial, operational, and technical. Prepares students for the CompTIA Security+ exam.

Prerequisite: Prerequisite: CNA 101, and either CNA 121 or CNA 122.

CNA 221 Windows Server Administration 5 Credits

Explores how to deploy and maintain a Windows Server network infrastructure in an enterprise environment, including DNS, DHCP, remote access, and distributed network solutions. Requires a strong understanding of the Windows client and Server operating systems.

Prerequisite: Prerequisite: CNA 122 or instructor's permission.

CNA 234 Windows Server Services 5 Credits

Synthesizes and expands topics covered in previous Windows Server courses, including integration of various network services. Focuses on management of Active directory objects and policies. Incorporates Certificate services in Federation and Access Solutions.

Prerequisite: Prerequisite: CNA 221 or instructor's permission.

CNA 251 Cisco III 5 Credits

Covers the architecture, components, and operations of routers and switches in larger and more complex networks. Includes configuration of routers and switches for advanced functionality.

Prerequisite: Prerequisites: CNA 150 and eligible for Math 092 and ENGL 090.

CNA 256 Python for Cybersecurity 5 Credits

Introduces Python scripting for system administration and security testing.

Prerequisite: Prerequisite: CNA 120 and CNA 210.

CNA 285 Cisco Cybersecurity 5 Credits

Explores cybersecurity concepts and Cisco security configurations. Emphasizes Red Team vs. Blue Team cybersecurity, with focus on the defensive Blue Team. Content applies to both Cisco Network Security and CompTIA Cybersecurity Analyst (CySA+).

Prerequisite: Prerequisite: CNA 122 and CNA 150 and CNA 210.

CNA 296 Managing Network Environments 3 Credits

Focuses on Global Network design and implementation. Includes configuration, installation, and user support of Microsoft and Cisco network systems.

Prerequisite: Prerequisite: CNA 210 and CNA 221 and CNA 251.