

NORTH CAROLINA CAREER AND TECHNICAL EDUCATION STANDARDS

Computer Science and Information Technology Education

Grade: Grade 9 - 12

Course: Network Administration I **Updated**

NCCTE.2020.BN20 - Network Administration I

NCCTE.2020.BN20.01.00 - Understand networking concepts.

NCCTE.2020.BN20.01.01 - Explain the purposes and uses of ports and protocols.

NCCTE.2020.BN20.01.02 - Explain devices, applications, protocols, and services at their appropriate OSI layers.

NCCTE.2020.BN20.01.03 - Explain the concepts and characteristics of routing and switching.

NCCTE.2020.BN20.01.04 - Configure the appropriate IP addressing components.

NCCTE.2020.BN20.01.05 - Compare the characteristics of network topologies, types, and technologies.

NCCTE.2020.BN20.01.06 - Implement the appropriate wireless technologies and configurations.

NCCTE.2020.BN20.01.07 - Summarize cloud concepts and their purposes.

NCCTE.2020.BN20.01.08 - Explain the functions of network services.

NCCTE.2020.BN20.02.00 - Understand infrastructure.

NCCTE.2020.BN20.02.01 - Deploy the appropriate cabling solution.

NCCTE.2020.BN20.02.02 - Identify the appropriate placement of networking devices on a network and install and configure them.

NCCTE.2020.BN20.02.03 - Explain the purposes and use cases for advanced networking devices.

NCCTE.2020.BN20.02.04 - Explain the purposes of virtualization and network storage technologies.

NCCTE.2020.BN20.02.05 - Compare WAN technologies.

NCCTE.2020.BN20.03.00 - Understand network operations.

NCCTE.2020.BN20.03.01 - Use appropriate documentation and diagrams to manage the network.

NCCTE.2020.BN20.03.02 - Compare business continuity and disaster recovery concepts.

NCCTE.2020.BN20.03.03 - Explain common scanning, monitoring and patching processes and summarize their expected outputs.

NCCTE.2020.BN20.03.04 - Use remote access methods.

NCCTE.2020.BN20.03.05 - Identify policies and best practices.