NORTH CAROLINA CAREER AND TECHNICAL EDUCATION STANDARDS

Computer Science and Information Technology Education

Grade: Grade 9 - 12
Course: Network Engineering Technology II `Updated`

NCCTE.2020.II12 - Cisco Network Engineering Tech II

NCCTE.2020.II12.01.00 - Apply procedures to configure devices by using security best practices.

NCCTE.2020.II12.02.00 - Understand how Layer 2 switches forward data.

NCCTE.2020.II12.03.00 - Apply procedures to implement VLANs and trunking in a switched network.

NCCTE.2020.II12.04.00 - Apply procedures to troubleshoot inter-VLAN routing on Layer 3 devices.

NCCTE.2020.II12.05.00 - Understand how STP enables redundancy in a Layer 2 network.

NCCTE.2020.II12.06.00 - Apply procedures to troubleshoot EtherChannel on switched links.

NCCTE.2020.II12.07.00 - Apply procedures to implement DHCPv4 to operate across multiple LANs.

NCCTE.2020.II12.08.00 - Apply procedures to configure dynamic address allocation in IPv6 networks.

NCCTE.2020.II12.09.00 - Understand how FHRPs provide default gateway services in a redundant network.

NCCTE.2020.II12.10.00 - Understand how vulnerabilities compromise LAN security.

NCCTE.2020.II12.11.00 - Apply procedures to implement switch security to mitigate LAN attacks.

NCCTE.2020.II12.12.00 - Understand how WLANs enable network connectivity.

NCCTE.2020.II12.13.00 - Apply procedures to implement a WLAN using a wireless router and WLC.

NCCTE.2020.II12.14.00 - Understand how routers use information in packets to make forwarding decisions.

NCCTE.2020.II12.15.00 - Apply procedures to configure IPv4 and IPv6 static routes.

NCCTE.2020.II12.16.00 - Apply procedures to troubleshoot static and default route configurations.

NCCTE.2020.II12.17.00 - Identify Cisco equipment and related hardware.

NCCTE.2020.II12.18.00 - Understand Cisco IOS software operation.

NCCTE.2020.II12.19.00 - Understand general networking knowledge.

NCCTE.2020.II12.20.00 - Understand service-related knowledge