CPTR2200 - CISCO 3

Credits:	3 (2/1/0)
Description:	This course describes the architecture, components, operations and security to scale for large, complex networks, including wide area network (WAN) technologies. The course emphasizes network security concepts and introduces network virtualization and automation. Students learn how to configure, troubleshoot and secure enterprise network devices and understand how application programming interfaces (API) and configuration management tools enable network automation.
Prerequisites:	• CPTR1118
Corequisites:	
Pre/Corequisites*:	
Competencies:	1. Configure single-area Open Shortest Path First Version 2 (OSPFv2) protocol in both point-to-point and multi-access networks. 2. Explain how to mitigate threats and enhance network security using access control lists and security best practices. 3. Implement standard Internet Protocol Version 4 (IPv4) access control lists to filter traffic and secure administrative access. 4. Configure network address translation (NAT) services on the edge router to provide IPv4 address scalability. 5. Explain techniques to provide address scalability and secure remote access for wide area networks. 6. Explain how to optimize, monitor and troubleshoot scalable network architectures. 7. Explain how networking devices implement quality of service. 8. Implement protocols to manage the network. 9. Explain how technologies such as virtualization, software defined networking and automation affect evolving networks.
MnTC goal areas:	None

**Can be taking as a Prerequisite or Corequisite.*