

Course Title	ENTERPRISE NETWORKING & SECURITY
Course Code	CSC 405
Course Purpose and Objectives	<p>This course is aligned with the course of Enterprise Networking, Security, and Automation (ENSA) offered by the CISCO Networking Academy. This is the third and last course in the CCNAv7 curriculum and its useful completion can award the full certification of CISCO CCNA.</p> <p>In this course students will have the opportunity to explore the architectures and considerations related to designing, securing, operating, and troubleshooting enterprise networks. This course covers wide area network (WAN) technologies and quality of service (QoS) mechanisms used for secure remote access. It also introduces software-defined networking, virtualization, and automation concepts that support the digitalization of networks. Students gain skills to configure and troubleshoot enterprise networks, and learn to identify and protect against cybersecurity threats. They are introduced to network management tools and learn key concepts of software-defined networking, including controller-based architectures and how application programming interfaces (APIs) enable network automation.</p>
Learning Outcomes	<ol style="list-style-type: none"> 1. Define wide area network (WAN) technologies 2. Define software-defined networking, virtualization, and automation concepts that support the digitalization of networks 3. Apply quality of service (QoS) mechanisms for securing remote access 4. Identify and protect against cybersecurity threats 5. Configure and troubleshoot enterprise networks 6. Use network management tools for enabling network automation
Course Content	<ul style="list-style-type: none"> • Single-Area OSPFv2 Concepts • Single-Area OSPFv2 Configuration • Network Security Concepts • ACL Concepts • ACLs for IPv4 Configuration • NAT for IPv4 • WAN Concepts • VPN and IPsec Concepts • QoS Concepts • Network Management • Network Design • Network Troubleshooting • Network Virtualization • Network Automation