

# IST 256C : Enterprise Networking, Security, and Automation

Students will learn how to configure routers and switches for advanced functionality. Topics of discussion include but are not limited to SingleArea open shortest path first (OSPFv2) concepts and configuration, networking security concepts such as access control lists and network address translation, and wide area network (WAN) concepts. Students will learn about quality of service (QOS) and how VPNs are used. The course will focus on network design, management, and troubleshooting. Network virtualization and automation will be introduced.

**Credits** 3

**Lab/Practicum/Clinical Hours** 2

**Lecture Hours** 2

**Prerequisites**

CCNA C2 with a grade of C or higher

**Learning Outcomes**

- Design and configure a network for a small- to medium-sized business.
- Implement networking technologies such as Open Shortest Path First routing protocol, Etherchannel, Hot Standby Routing Protocol, Dynamic Host Configuration Protocol, ACLs, Network Address Translation, and VPNs.