

CSCI 121R: Switching & Routing and Wireless Essentials

This course is a continuation of Introduction to Networks, with increased focus on the installation and configuration of local and wide area networks in a small to medium business environment or Internet Service Provider (ISP). Students will be able to describe the architecture, components, and operations of routers and switches in a small network, and learn basic functionality. Students will also learn LAN, Switch, and Wireless Security concepts and configurations. Topics include an introduction to routing using the Cisco IOS, expanded OSI model, Help Desk, Network Upgrades, expanded IP sub-netting and the purpose and responsibilities of the Internet Service Provider (ISP). Students will learn security configuration using standard LAN and Wireless LAN networks that are used in business. By the end of this course, students will be able to configure and troubleshoot routers, switches, wired, and wireless LANs and resolve common issues with both IPv4 and IPv6 wired and wireless networks.

Credits: 3

Lab Hours: 2

Lecture Hours: 2

Prerequisites: CSCI 110R (or corequisite)

Program: **Computer Technology**