



Connecting Networks

2023-2024 Catalog

[ARCHIVED CATALOG]

NETI 215 - Connecting Networks

PREREQUISITES: [NETI 205 - Scaling Networks](#).

PROGRAM: Network Infrastructure

CREDIT HOURS MIN: 3

LECTURE HOURS MIN: 1.5

LAB HOURS MIN: 3

DATE OF LAST REVISION: Fall, 2014

Covers the WAN technologies and network services required by converged applications in a complex network. Students will learn the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Students will also develop the knowledge and skills needed to implement security and virtual private network operations in a complex network. Hands-on practical application will be included as preparation for the Cisco Certified Network Associate.

MAJOR COURSE LEARNING OBJECTIVES: Upon successful completion of this course the student will be expected to:

1. Understand and describe different WAN technologies.
2. Understand and describe the operations and benefits of virtual private networks.
3. Configure and troubleshoot serial interfaces used in networking.
4. Configure and troubleshoot broadband connections.
5. Configure and troubleshoot network security protocols with Virtual Private Networks.
6. Monitor and troubleshoot network operations using appropriate networking tools.
7. Design borderless networks, data centers and virtualized networks, and network architectures.

COURSE CONTENT: Topical areas of study include -

- NAT
- PPP
- Frame Relay
- HDLC
- VPN
- IPSec
- DSL Connectivity
- Cable Connectivity
- NetFlow
- SNMP
- Syslog
- Data Center Technology
- Collaboration Technology
- Network Design
- Network Troubleshooting

- Tunneling



CERTIFICATION/LICENSURE DISCLAIMER:

Ivy Tech cannot guarantee that any student will pass a certification or licensing exam. Your success will be determined by several factors beyond the instruction you are given in the classroom including your test-taking skills, your willingness to study outside of class, and your satisfactory completion of appropriate practice exams. Certification exam questions are drawn from databases of tens of thousands of possible questions and no two people are asked exactly the same progression of questions. Therefore, a thorough understanding of the subject matter is required. The goal of Ivy Tech in providing a certification exam studies class is to assist you in understanding the material sufficiently to provide a firm foundation for your studies as you prepare for the exam.

SOFTWARE REQUIREMENTS:

Face-to-Face Sections Lab requirements:

- Proctored Final Exam and Skills Exam, using an on-campus network lab or "Net Lab (NDG)" are required.
- Cisco's NetSpace Learning Management System.
- Wireshark packet analyzer (latest version).
- Cisco' Packet Tracer network simulator (latest version).
- Terminal Emulation Software.
 - Tera Term (latest version)
 - PuTTY (latest version)
- TFTP 32 (latest version)

[Course Addendum - Syllabus \(Click to expand\)](#)
