Infrastructure Design - Logical and Physical

2023-20 Catalog

[ARCHIVED CATALOG]

NETI 120 - Infrastructure Design - Logical and Physical

PREREQUISITES/COREQUISITE: NETI 105 - Network Fundamentals or NETI 109 - Networking I.

PROGRAM: Network Infrastructure
CREDIT HOURS MIN: 3
LECTURE HOURS MIN: 2
LAB HOURS MIN: 2
DATE OF LAST REVISION: Spring, 2014

Focuses on the structural and logical design, planning, installation, operation, maintenance and troubleshooting of Local Area Networks. Students will learn various copper and fiber optic cabling standards. Students will be provided a comprehensive coverage on current cabling methodologies.

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

1. Explain cabling systems and the infrastructure.
2. Explain the importance of safety and professionalism.
3. Discuss pathways, spaces, bonding, grounding and fire stopping.
4. Define cabling systems components and data cabling standards.
5. Determine appropriate cabling based on applicable codes, standards, and best practices.
6. Choose the correct tool or methodology for specific cabling tasks.
7. Terminate various types of cabling connectors and wall plates.
8. Explain the various types of copper and fiber optic cabling media.
9. Install and configure appropriate infrastructure for wired and wireless networks
10. Design and install cabling systems.
11. Test and troubleshoot cabling systems.
12. Determine the appropriate implementation for the various types of fiber optics.
13. Explain the principles and characteristics of light and fiber optic transmission.
14. Choose the appropriate fiber optic light sources, detectors, receivers, and transmitters.
15. Explain logical and physical types of fiber optic topologies.

COURSE CONTENT: Topical areas of study include -

- Passive Optical Networks
- Wireless LAN
- Request for Proposal
- Infrastructure
- Codes and standards
- Cabling systems

- Fiber optics
- Wall plates
- Terminators
- Transmission
- Professionalism
- Safety
- Copper cabling
- Networking tools
- Electromagnetism
- UTP
- STP
- Microwave
- Interference

Course Addendum - Syllabus (Click to expand)
