Broadband Academy- Level Two- Course Competencies

Fiber Installation 2: (47451456)

- Explain the evolution of broadband fiber-optic transmissions
- Explain the principles of fiber-optic transmission
- Explain the basic principles of light
- Analyze optical fiber construction and theory
- Explain optical fiber characteristics
- Outline fiber-optic safety
- Explain fiber-optic cable types and uses
- Analyze factors in splicing fiber-optic cables
- Differentiate between types of fiber-optic connectors
- Explain fiber-optic light sources
- Explain fiber-optic detectors and receivers
- Explain passive components and PON
- Outline cable installation hardware
- Analyze the components of a fiber-optic system design
- Conduct fiber tests
- Analyze strategies for troubleshooting fiber systems

Cable Installation 2: (47451457)

- Outline the basic operations of data cabling
- Analyze cabling specifications and standards
- Explain basic network architectures
- Outline National Electric Code (NEC) and Underwriters Laboratories (UL) requirements
- Explain cabling system components
- Determine the uses for data cabling installer tools
- Explain transmission media for networking and telecommunications
- Explain telecommunications outlet and connectors
- Explain Local Area Network (LAN) and Wireless networks and interconnections
- Explain cabling systems and connector installations
- Explain cabling testing and troubleshooting
- Explain data cabling documentation and process

Fiber Outside Plant Design: (47451463)

- Explain Fiber Optic Design language
- Differentiate between standards and codes
- Characterize LAN premise networks
- Characterize Outside plant networks
- Identify cabling application project types
- Characterize the components of planning a project
- Document project planning process
- Identify project components
- Identify Power and loss Budgets
- Develop a test plan
- Plan the managing of the project
- Characterize the components of estimating
- Identify outside plant construction considerations

IT Essentials and Security: (10150139)

- Practice the basics of being safe online
- Examine the components of a desktop and laptop computer
- Protect him/herself against accidents and injury
- Protect equipment from damage
- Identify security attacks, symptoms, processes, and countermeasures
- Perform preventive maintenance and troubleshooting
- Communicate cyber-security concepts in a professional manner with team members and customers
- Configure basic security on the Microsoft operating system
- Configure network components on a desktop and laptop computer
- Install a network printer