

# ADVANCED FIBER OPTICS

“TO ENABLE NOT ENCUMBER”

## COMPANY DATA

Based in Brentwood, Tennessee, The Sage Group has successfully trained professionals for over twenty-five years by positioning itself at the forefront of technological innovation and sharing industry-specific expertise with eager learners from coast to coast. The Sage Group maintains a strategic alliance with Nashville State Community College that permits it to offer courses that may be applied toward an Associate Degree in General Technology. In addition, The Sage Group provides professional IT Mentoring Services to assist companies and government agencies working on IT projects, reducing their need to engage cost prohibitive external sources.

## ADVANCED FIBER OPTICS

The Advanced Fiber Optics course is designed for participants who want to learn more about specialized fiber optic applications or who want to develop additional skills in the process of fiber optic installation. Participants will also have successfully obtained the Fiber Optic Association (FOA©) Certified Fiber Optic Technician Certification (CFOT) and have sufficient field experience to qualify for specialty certifications.

This course focuses on three primary sections:

- Section I – Fiber To The Home - This section covers FTTx networks, cabling design and installation, which includes passive optical networks (PON).
- Section II - Optical Local Area Networks (OLANs) - This section covers optical LAN (OLAN) networks, cabling design and installation, which includes point to point (P2P) and PON networks.
- Section III – Data Center Cabling – This section covers the special requirements and considerations involved in cabling Data Centers.

## FORMAT

The Advanced Fiber Optics course is 45 hours in length, offered in 3-hour sessions.

## BENEFITS

The Advanced Fiber Optics course helps prepare participants for the Fiber Optic Association's CFOS/H, CFOS/L, and CFOS/DC certifications.

## OBJECTIVES

Upon successful completion of the course, participants will be able to:

- define FTTx (FTTH/P, FTTC) networks
- compare types of FTTx architectures and networks, advantages, and disadvantages
- describe FTTx components, options in types used
- discuss testing and troubleshooting methodologies
- design FTTx networks
- define Optical Lan
- discuss the development of LAN and Premise cabling
- describe Fiber To The Office/Outlet (FTTO)
- discuss the advantages and disadvantages of OLANs
- describe OLAN installation methods
- demonstrate OLAN testing methods
- describe OLAN safety issues
- describe Data Center operations
- define Data Center cabling requirements
- discuss industry cabling standards for Data Centers
- demonstrate various media capabilities and uses
- define connectors and fiber types used in Data Centers
- discuss Data Center cable testing and documentation requirements
- describe Data Center security issues



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