



Fiber Optics for Pro A/V and Broadcast

Gain an understanding of how fiber optics is utilized in the Pro A/V and broadcast industries and the skills to install, maintain, test and troubleshoot a fiber optic network. You'll learn fiber optic transmission theory, system design parameters, installation guidelines, fiber optic connector and splice termination options, test equipment, testing documentation and troubleshooting tailored for Pro A/V and broadcast applications.

The hands-on portion of the course covers cable preparation, terminations, testing and troubleshooting.

Course Format: Four days; two days of lecture and two days of hands-on skills exercises

Audience: AV consultants, integrators, system designers, technicians, sales and marketing personnel

Course Outline

Classroom (16 Hours)

- Optical Theory**
- Optical Fibers**
- Fiber Optic Cables**
 - Composite Cables
- Terminations**
 - Pro A/V and HDTV Connectors
- Fiber and Cable Management**
- Installation**
- Testing and Test Equipment**
- Emergency Restoration**
- Active and Passive Devices**
- System Design**
- A/V System Applications**
 - Optical Distribution
 - Wavelength Multiplexing
 - Mode Converters
- System Standards**
- Fiber Optic Safety**

Hands-On (16 Hours)

- Station #1 – Cable Preparation**
 - Tight Buffered Cable Preparation
 - Loose Tube Cable Preparation
 - Fan-out Kit Installation
- Station #2 – Connectorization**
 - Splice-on Connectors
 - Anaerobic Connectors
 - 900-µm Multimode Jumpers
- Station #3 – Connector Inspection and Cleaning**
 - Broadcast Connectors
 - Standard Connectors
- Station #4 – Splicing**
 - Fiber Preparation and Cleaving
 - Fusion Splices • Mechanical Splices
- Station #5 – Field Testing**
 - Insertion Loss Measurement
 - Network Event Loss
 - Measuring Cable Length
 - Isolating Span Problems
 - Troubleshooting Terminations
 - Locating Faults
 - Tx Power • Rx Power
 - System Bandwidth

Certification

Light Brigade
Certificate

Complete this course and receive a Light Brigade Certificate of Completion.



Eligible for 32 Avixa RUs.

Course Fees*

Four-day course **\$1500**

Discounts

- 10% Multiple attendees
- 10% USTelecom members
- 15% IMSA, UTC, and FBA members
- 25% Light Brigade alumni

* Prices valid for registrations received at least 21 days prior to class.

Upcoming Dates and Locations

- Las Vegas, NV** June 4-7, 2018
- Burbank, CA** July 31-Aug 3, 2018