Certified Technician

5 Day Certified Technician Course

COURSE OVERVIEW: Our mission is to provide our students with the hands-on knowledge and the ability to successfully terminate a variety of ST, SC, FC and Small Form Factor (SFF) connectors; perform fusion splicing, mechanical splicing, and assemble a splice enclosure. Students will perform cable preparation for fusion and mechanical splicing. Additionally, students will be trained to fully test and troubleshoot fiber optic cables and fiber optic systems using an Optical Time Domain Reflectometer (OTDR).

WHO SHOULD ATTEND: Anyone who is involved in design, configuration, installation, testing, troubleshooting, or fiber optic system maintenance: technicians, system analysts, design engineers, managers, telecommunication professionals, etc.

CERTIFICATIONS: At KITCO, our instructors are 3M factory trained technicians and we understand the need to provide you with recognized industry certified training. Our 5 Day Certified Commercial Course will qualify you for:

BICSI - RCDD & Installation Program Continuing Education Credits
3M - Factory Certificate
KITCO - Completion Certificate
ETA CERTIFICATION(S) - (Electronics Technicians Association) ETA exams are optional; they offer a great opportunity to become certified in a relatively short time. At the completion of day three (3), we can administer the ETA Certified Fiber Optic Installer exam for a cost of $150. Then, at the completion of day five (5), for an additional cost of $150, we can administer the ETA Certified Fiber Optic Technician exam. Upon successful completion of both exams, you will be certified as an ETA Certified Fiber Optics Technician.

COURSE OUTLINE

DAY 1: FIBER OPTICS, THE PHYSICAL LAYER

- Introduction to fiber optics
- Advantages of fiber optics over copper
- Fiber optic theory & the properties of light
- Applications and principles
- Fiber optic safety precautions
- Reflection and refraction
- Propagation of fiber optic light waves
- Attenuation of the fiber signal
- Cable construction and selection of the right fiber
- Fiber optic distribution hardware
- Stripping and scoring of fiber optic cable
- Identification of fiber optic connectors

DAY 2: CONNECTORIZATION AND TESTING LAB

- 3M Connectorization; Hot Melt, epoxy (ST, SC & FC)
- ST and SC cable assembly with Anaerobic Adhesive
- Loss budget calculations
- Testing demonstration of Light Source and Power Meter
- Students test cable assemblies
- Evaluation of hands-on performance
- Evaluation of students' termination skills

DAY 3: ADVANCED TOPICS AND EVALUATION

- 3M Fibrlok II splices
- Evaluation of students' termination skills
- Testing of students' cable assemblies
- Evaluation of hands-on performance
- Optical Time Domain Reflectometer (OTDR) principles
- Course review
- Optional ETA exam (FOI)

DAY 4: OPTICAL TIME DOMAIN REFLECTOMETER LECTURE & LAB

- OTDR Theory
- OTDR Usage
- Scattering, Reflections & Absorption
- OTDR Measurements
- OTDR Events (Reflective & Non-Reflective)
- Deadzones (Event & Attenuation)
- Gainers & Losers
- Resolution
- Trace Basics
- Troubleshooting
- Demonstration of OTDR operation
- Students operate OTDR
- Troubleshooting techniques
- Students use OTDR to locate faults

DAY 5: FUSION SPLICING LECTURE & HANDS-ON LAB

- Introduction to Fusion Splicing
- Types of Fusion Splicers
- Profile Alignment System (PAS) Splicer

- Fixed V-Groove Splicer
- Mass Fusion Splicer (Ribbon)
- New Generation Mini Splicer (Fully Automated)
- Types of Splice Enclosures
- Wall Mount Enclosures
- Rack Mount Enclosures
- Splice Trays & Splice Shelves
- Aerial Enclosures
- Pedestals & Underground
- Demonstration of Fusion Splicer's operation
- Students perform Fusion Splicing
- Preparing cables for splicing inside a Splice Enclosure
- Students assemble the Splice Enclosure
- Test splices using an OTDR
- Optional ETA exam (FOT)

PRICE: Please contact us for current pricing. Send an e-mail to: training@kitcofo.com or call 866-643-5220 or 757-216-2222.