CERTIFIED FIBER TO THE HOME SPECIALIST COURSE

Course Description: This 2-day, Fiber To The Home Specialist course is a comprehensive program to introduce the fiber optics technician to Fiber to the Home architectures being utilized, advantages and disadvantages of each and types of components necessary to complete a FTTH fiber segment. Upon completion of this course, the student will be familiar with why FTTH is being implemented today, including technical, marketing, and financial justifications. The student will further be familiar with the technical details and attributes of specialized FTTH components such as: splitters/couplers and wavelength-division multiplexers and the requirements for cables, connectors, splices, and associated hardware. FTTH design and installation requirements will be discussed in detail. The student will be able to successfully install, test, troubleshoot, and maintain FTTH links as a result of real world, hands-on training sessions. Course fee includes all study materials. Course sanctioned by the Fiber Optics Association (FOA).

Prerequisite: As of January 1, 2015, the student MUST have successfully passed the basic CFOT course within the preceding 12 months or have renewed their FOA membership within that time frame prior to attending the CFOS/T, CFOS/S, CFOS/H and/or the CFOS/O FOA Specialist courses offered by BDI Datalynk. Students are encouraged to register for all courses being offered at the individual locations with the understanding that the CFOT is the prerequisite for all other courses and it must be successfully completed first prior to attending any of the other "specialist" courses.

Course Objective: Program prepares the student to take the Certified Fiber to the Home Specialist (CFOS/H) exam given and graded at the end of class. Student will be able to effectively and efficiently install, terminate, and test singlemode FTTH fiber optic networks.

Method Of Assessing Whether Course Objective Was Met: Along with class discussions/presentations and substantial hands-on activities, the FOA CFOS/H exam is given and graded at the end of the class. 70% of the questions must be answered correctly to successfully pass the exam. The exam is closed book. Students will further demonstrate the ability to build, test, and troubleshoot a simulated FTTH network. Both the hands-on exam AND the written exam must be passed to receive FOA certification.

Contact (Instructional) Hours: 16 – Hours*

 *Actual hours may vary depending on number of students.

Particular Physical Demand(s) on student: Students must be able to see, manipulate, and hold small tools and test equipment. Students must be able to read and speak the English language. Students must have the ability to announce to anyone in the classroom that lasers are about to be turned on or are currently on and active. Further, student must be able to hear and react to the announcement from

anyone in the classroom that lasers are about to be turned on or currently active. Finally, students considering this, or any other fiber optics course must understand that, because of safety issues in dealing high-power lasers and microscopes, the ability to communicate these important announcements to co-workers and the ability to hear and react to these announcements from co-workers is required once in the field working in this industry.

Textbook: Fiber Optics Technician's Reference Manual by Jim Hayes, Supplementary Study Materials and Student Lab Manual. Course fee includes all study materials and consumables and exams.

Course Schedule:

Day – 1:

- Introduction to FTTx (FTTH/P, FTTC) Types of FTTx Architectures
- Designing FTTx Networks
- Installing FTTx Segments
- PON Splitters/Couplers & Associated Components
- FTTx Testing & Troubleshooting
- FTTx Fiber Optics Safety
- OSP Fiber Installation Review
- Hands-on Session Begins – Installation, Fusion Splicing, and Testing of SM FTTx Networks utilizing SC/APC Singlemode Pigtails, OSP and ISP FTTx Fiber Optics Cable and Hardware. In addition to standard tools and fiber optics test equipment, Fitel Fusion Splicers will be used throughout hands on sessions.
- Testing and certification will be accomplished using OWL OLTSs and OWL Singlemode OTDRs.

Day – 2:

- Hands-on Session Continues
- Review of OTDR & OLTS Testing Procedures
- OLTS and OTDR PON Testing
- OLTS and OTDR PON Testing. (Testing and certification will be accomplished using OWL WaveTester Test Kits and Singlemode OTDRs.)
- PON Troubleshooting
- Practical Hands-on Exam: – Troubleshooting, Repair and Re-Certification of FTTx Networks. Testing and certification will be accomplished using OWL WaveTester Test Kits and Singlemode OTDRs.
- Administer and Grade Written and Hands-On CFOS/H Test
- **To receive FOA certification, students must pass both written and hands on exams.**