

CERTIFIED FIBER OPTICS SPECIALIST IN TESTING & MAINTENANCE (CFOS/T)



Course Description: This 2-day, 16-hour (*Appx.) program is designed to offer advanced training to anyone involved with the testing and maintenance of fiber optics networks. A focal point in the program is to offer a general, easy to understand, approach to fiber optics testing standards with little theory and considerable hands on activities. This comprehensive program explains the variety of testing standards, equipment and technological approaches

used in fiber network testing and splicing and how to choose among them. This 85% hands on course explores the overall spectrum of testing and maintenance of singlemode fiber optics networks and provides a detailed overview and demonstration of various pieces of equipment used in testing and maintenance. Subject matter includes a detailed study of ANSI/TIA/EIA-526-(7)A, OTDR fundamentals and uses, OTDR vs. Insertion Loss Testing, Return Loss Testing, and Attenuation testing using the Power Source and Light Meter.

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, 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 Specialist in Testing & Maintenance Fiber Optics Certification Exam given at the end of class. Student will be able to effectively and efficiently identify fiber network defects and provide QA (Quality Assurance) procedures to minimize or eliminate future network outages.

Method Of Assessing Whether Course Objective Was Met: Along with chapter tests, class discussions, and substantial hands-on activities, the Specialist Fiber Optics Certification Test (both written and practical) is given and graded at the end of the class. Students will receive a Certificate of Completion at the end of the program.

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 ANSI/TIA/EIA-568-B.3, Optical Fiber Cabling Components Standard.
- A review of fiber optics safety procedures
- Comprehensive overview of ANSI/TIA/EIA-526-14A , FOTP-171, FOTP-107
- Hands-on activities demonstrating OFSTP 7 test procedures. Students must build, test and troubleshoot actual singlemode ISP network to industry standards utilizing all available test equipment: OTDR, OLTS, and VFL.

- Introduction to OTDR Functions,
- Use of the OTDR, Power Source and Light Meter Functions,
- Fiber Identifier,
- Continuity Testing,
- Tools and Equipment,
- Safety,
- Class Discussion,
- Administer and Grade Specialist Written and Hands-On Exams
- Test Results & Review, Conclusion
- **To receive FOA certification, students must pass both written and hands on exams.**

Day – 2: