

Collin College - Continuing Education COURSE SYLLABUS

COURSE INFORMATION

Course Number: FIBR 7365

Course Title: Certified Fiber Optics Specialist-Testing / Maintenance (CFOS/T)

Course Description: This 2-day (16-hour) 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 95% hands on course explores the overall spectrum of testing and maintenance of single and multi-mode 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-526-14(7)A, OTDR fundamentals and uses, OTDR vs. Insertion Loss Testing, Return Loss Testing, and Attenuation testing using the Power Source and Light Meter.

Suggested Course Prerequisite(s): Successful completion of FOA CFOT Course within the preceding 12 months or renewal of FOA membership during that time frame. This course may be taken immediately after successfully completing the CFOT course.

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

Student Learning Outcomes: 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.

Certification Notes: 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.

Next course recommendation: Certified Fiber Optics Splicing Specialist (CFOS/S)

Refund Policy: Please refer to www.collin.edu/ce/info REGISTRAR.html for our refund policy. No refunds after the start time of the first class.

Americans with Disabilities Act: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal opportunity. It is the student's responsibility to contact the ACCESS office, SCC-D140 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

Course Sessions: Listed are guidelines to indicate all topics that will be covered during your course. Do not plan your personal calendar based on these sessions. Your instructor will give you a calendar for your class that will indicate specific topics, assignments, and days.

Lesson Plan – by week or session:

- **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 OFST-7 and emergency cable repair using connectors. Students must build, test and troubleshoot actual single mode ISP network to industry standards utilizing all available test equipment: OTDR, OLTS, and VFL.

- **Day – 2:**
- 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

Method of Evaluation: Unless otherwise stated, course completion is evaluated on the basis of attendance. Students must be in attendance 90% of each course in a certificate series for successful completion and to earn a certificate as specified.