

National Transportation Technologies (NTT), in conjunction with the Fiber Optic Association (FOA), has developed this **Introduction to Fiber Optics** course to provide participants with a solid foundational understanding of fiber optic communications. This one- or two-day course is designed for individuals seeking to learn how fiber optics works, where it is used, and how it supports transportation and infrastructure systems.

Participants will explore the fundamental theory, terminology, and practical applications of fiber optic technology. The course combines classroom instruction with real-world context, making it ideal for technicians, inspectors, designers, and other transportation professionals who are new to fiber optics or looking to strengthen their baseline knowledge.

This class is offered in two different formats to fit your training needs.

**One Day Class – Online:** This online class will review the information in the FOA handbook.

**Two Day Class – In-person:** This in-person class will review the information in the FOA Handbook along with hands on labs that will give you a sound foundation for your continued Fiber Optic Training.

### **Key Topics Covered:**

- Introduction to fiber optic technology
- Applications of fiber optics in transportation and ITS systems
- Components of fiber optic communication systems
- Optical fiber types and their applications
- Fiber optic cable construction and selection
- Splicing methods and best practices
- Connectorization and terminations
- Basic installation techniques
- Overview of testing methods for fiber optic systems

This introductory session is well-suited for individuals preparing to pursue industry certifications such as the FOA Certified Fiber Optic Technician (CFOT), FOA Certified Fiber Optic Specialist in Design (CFOS/D), or those seeking Continuing Education Units (CEUs) toward IMSA Fiber Optic certifications.

Whether you are entering the field or expanding your technical skillset, this course provides the essential knowledge needed to understand and work with fiber optic systems in today's transportation environment.

[FOA – Introduction to Fiber Optics](#)