



*Training Course:
Fundamentals of Fiber Optic Communications*

*29 December 2025 - 2 January 2026
Barcelona (Spain)
Grupotel Gran Via 678*

Training Course: Fundamentals of Fiber Optic Communications

Training Course code: SC235072 From: 29 December 2025 - 2 January 2026 Venue: Barcelona (Spain) - Grupotel Gran Via 678 Training Course Fees: 6000 € Euro

Introduction

This training program is designed by Global Horizon Training Center to provide participants with a comprehensive understanding of the fundamentals of fiber optic communications. Participants will learn about the basic principles of light transmission through fiber optic cables, the components of a fiber optic communication system, and the different types of fiber optic cables and their applications. The program will also cover the advantages and disadvantages of fiber optic communications over other communication technologies, such as copper wire and wireless communication.

Methodologies

The training program will use a combination of lectures, hands-on activities, case studies, and group discussions to provide participants with a well-rounded learning experience. Lectures will cover the theoretical concepts of fiber optic communications, including the basic principles of light transmission, the different types of fibers and cables, modulation techniques, amplifiers, and performance analysis. Hands-on activities will allow participants to work with fiber optic cables, connectors, and splices in a safe and controlled environment. Case studies will be presented to illustrate the practical benefits of fiber optic communications in real-world applications. Group discussions will provide opportunities for participants to share their experiences and perspectives on fiber optic communications.

Target Audience

This training program is designed for professionals working in the telecommunications, networking, and data center industries who want to gain a better understanding of the principles and practices of fiber optic communications. This includes:

- Network engineers and administrators
- Telecommunications professionals
- Data center technicians and managers
- IT professionals
- Electrical engineers
- Anyone interested in learning more about fiber optic communications

Objectives

By the end of the training program, participants should be able to:

- Explain the basic principles of light transmission through fiber optic cables

- Identify the different components of a fiber optic communication system and their functions
- Describe the different types of fiber optic cables and their applications
- Compare and contrast fiber optic communications with other communication technologies
- Understand the safety considerations when working with fiber optic cables

Training Outline

The training program will consist of the following modules:

Day 1: Introduction to Fiber Optic Communications

- Overview of fiber optic communications
- Basic principles of light transmission through fiber optic cables
- Advantages and disadvantages of fiber optic communications

Day 2: Components of a Fiber Optic Communication System

- Optical transmitters and receivers
- Optical fibers and cables
- Connectors and splices
- Amplifiers and repeaters

Day 3: Types of Fiber Optic Cables

- Single-mode fiber optic cables
- Multimode fiber optic cables
- Plastic optical fiber POF cables
- Specialty fiber optic cables e.g., polarization-maintaining fiber

Day 4: Applications of Fiber Optic Communications

- Telecommunications
- Data communications
- Cable television CATV

- Military and aerospace
- Medical and scientific research

Day 5: Safety Considerations

- Eye safety and protective equipment
- Chemical safety and handling
- Electrical safety and grounding
- Handling and storage of fiber optic cables

Registration form on the Training Course: Fundamentals of Fiber Optic Communications

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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Payment Method

- ☐ Please find enclosed a cheque made payable to Global Horizon
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