

CFOS/D/H - Register for 2 FOA qualifications

In order to offer greater value for course participants, we combined the following two courses into an unique 4-day offering:

1. Fiber Optic Network Design Specialist (CFOS/D)
2. Fiber Optic FTTx Specialist (CFOS/H)



COURSE OUTLINE

GENERAL INFORMATION:

- This is your chance to pose your questions, to review your solution choices, discuss upcoming technologies and benchmark ideas.
- Optic Association Inc. (FOA) certification programs are without question the most recognized in the world today.
- BICSI recognizes this particular course for the following Continuing Education Credits:

RCDD	OSP	INST2	TECH	CT
18	18	15	18	18



WHO SHOULD ATTEND:

- It is intended for contractors, installers, architects and engineers, project managers and all others who are involved with projects that include fiber optics.
- Prerequisites for the certification include having a FOA Certified Fiber Optic Technician (CFOT) certification.

INSTRUCTIONAL METHOD:

- The instructional methods used include: lectures, demonstrations, and solving case studies. Significant class time is devoted to designing hypothetical networks.
- Students will be tasked with solving as many as 15 different design case studies set to challenge capabilities in analyzing design rules and design alternatives.
- Diversity in perspective sets the stage for a lively exchange of ideas where students can learn from teams or individuals supporting different outcomes.

LEARNING OUTCOMES:

- Design cost and performance optimized Optical Communication solutions
- Design both traditional and next-generation optical networks to meet specified capacity, flexibility, and reliability requirements.

EVALUATION:

- Students will be eligible to write the exam on day-4.

COURSE DURATION:

- 4-days

For further information contact:

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COURSE CONTENT:

- This course provides an in-depth coverage of the major developments in wide-band, optical cross connect, and waveguide type devices that lay the foundation for next-generation networks.
- Students will study emerging technologies, design alternatives, configuration options, media selection criteria, key parameters affecting system performance, and the underlying theory required for total network design from initial planning to installation issues.
 - Transmission basics (SDH, PDH, E1, etc.)
 - High-capacity inter- and intra-building backbones
 - FTTH P2P and P2MP
 - Ultra-long and long-haul networks
 - Optical amplifiers
 - Add/drop multiplexers
 - Dense/Coarse Wavelength Division Multiplexing
 - Modulation schemes
 - SM and MM fiber selection
 - Fiber count percentage rules
 - Civil work

The design case studies include the following:

- Architecture - physical topologies
- Costing solutions
- Raw Video Broadcast & Video Overlay
- Ethernet
- Voice, Data, Video & Bandwidth
- Transceiver selection
- Calculate optical loss and power budgets
- Calculate distance
- Chromatic dispersion (CD)
- Calculate allowable CD
- Calculate length of link before affected by CD
- CD compensation
- Polarization-mode dispersion (PMD)
- Calculate tolerable PMD coefficients
- Calculate PMD coefficient admissible fiber lengths
- PMD compensation
- ...and on it goes.

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