Certified Fiber Optic Technician Course Outline

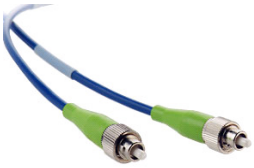
Triple Play
Fibre Optic Solutions
http://www.tripleplay.co.za

Day 1

08:30 to 16:00

INTRODUCTION TO FIBER OPTICS

- What Is Fiber Optics?
- Fiber Manufacturing Methods (video)
- Fiber Advantages
- Fiber Design
- How Fiber Works
- Refraction & Reflection
- Fiber Types:
  - OM1, 2, 3, & 4
  - SM G.652 to G.657
- G.656, G.655 & G.652 Compatibility
- Cutoff Wavelength
- Numerical Aperture
- Mode-Field Diameter
- What is an Optical Network?
- Transmitters and Transceivers
- Optical Modulation
- Optical Fiber Parameters
- Transmission bands
- Coarse Wave-Division Multiplexing
- Dense Wave-Division Multiplexing



- Time Domain Multiplexing
- Attenuation
- Scattering and Absorption
- Inter Modal and Chromatic Dispersion
- Polarization Mode Dispersion
- Mode-Conditioning
- Amplifiers
- Attenuators
- Cable Types
- Loose tube and Tight buffer
- Choosing a Cable
- Choosing a Connector
- Cable Specifications
- NEC Ratings
- Cable Plant Hardware
- Optical Fiber Cable Color Coding
- Best practices for installing cables

SAFETY

- Fiber Optic Installation Safety Rules

Day 2

08:30 to 16:00

SPLICING: FUSION, MECHANICAL AND TERMINATION METHODS

- Choosing a Splice Type
- Cable and fiber preparation techniques
- Fusion splicing featuring time saving techniques
- Splice Loss: Cause and Remedy
- Fusion splicer maintenance and cleaning
- Connector Types
- Termination Procedures

HANDS-ON Practical Session

- Fusion splicing: Using a variety of Fujikura machines; 60S, 50S, 17S, etc.
- Mechanical splicing: 3M Fibrlok
- Connectorization: Epoxy polish, 3M Hot Melt, and pre-polished
- Polishing techniques: Physical contact
- Fiber optic enclosures: Outdoor, Indoor, Wall mount, and Rack mount types

Day 3 08:30 to 16:00	**TESTING AND TROUBLESHOOTING** ♦ OTDR link characterization ♦ Testing at Various Wavelengths ♦ Loss and Power Budget Calculations ♦ Calculate admissible fiber lengths ♦ Certification ♦ Documenting Test results  ♦ Key parameters affecting system performance ♦ Mandrel Wrapping ♦ Gainers ♦ Mode-Field Diameter Issues ♦ Troubleshooting Procedures ♦ Measurement units ♦ Cleaning connectors  **HANDS-ON Practical Session** Working with the following test instruments: Visual Fault Locators, Fiber Microscopes, Power Sources, Power Meters, Fiber Identifiers, OTDRs…and on it goes.
Day 4 08:30 to 12:00	**WRAP-UP AND TEST ISSUES** **TEST**

ACCREDITATION

- The FOA is the premier certifying organization for fiber optics worldwide and without question the most recognized in the world today.
- In today's high tech world, certification is considered proof of professional status. We are an approved training centre for the Fiber Optic Association Inc. http://www.thefoa.org
- BICSI recognizes this particular course for the following Continuing Education Credits:

RCDD	OSP	INST2	TECH	CT
21	21	15	18	21

BICSI CONTINUING EDUCATION CREDIT PROVIDER

Endorsed By FTTH COUNCIL Africa

WHO SHOULD ATTEND?

- No previous experience is necessary. This training program is not limited to installers or technicians, it is an excellent credential for sales and marketing personnel, indicating their comprehensive knowledge of the industry and building confidence in their assistance to their customers.
- Refresh your knowledge or prepare for the CFOT exam online at Fiber U

WHAT WILL YOU LEARN?

- The primary focus of this course is to provide a comprehensive coverage of the best practices for the deployment of optical communication networks.
- Optical fiber installation, fusion & mechanical splicing, connectorization, acceptance testing, troubleshooting, and much more is taught with lots of hands-on practice.
- Comprehensive hands-on activities and the underlying theory are combined to provide a firm understanding of the concepts underpinning the deployment of optical communication networks.
- Also provided is coverage of the major developments in wide-band, optical cross connect, transceiver, and waveguide type devices that lay the foundation for next-generation networks.

OUR INSTRUCTORS

- Our instructors are respected industry experts with more than 20-years experience in this field.

Dates & Venues:

Please visit our Web site for more details.

http://www.tripleplay.co.za

For further information contact:

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