GoFar (FOA School#345) CFOT Program

Course Outline

Prerequisite – Not Mandatory but recommended

FOA Fiber U Certificate program.

Day 1 (8 HRS)

FOA CFOT PPT slide deck.
Cover all chapters and chapter review questions.
Explaining, discussing and examination of classroom samples including connectors, different fiber types (OSP, high count ribbon, indoor, FTTH drop cable, OPGW), various connectors, fiber jumpers, test equipment, splitters, SFP's, pre-term solutions.

Day 2 (8 HRS)

Safety Review for Labs

Lab - Proper cleaning techniques for endfaces, bulkheads, pre-polished solutions.

Lab – Connectors

Termination demonstration from instructor.

Installation of no epoxy, no polish connectors. Each student will build MM link and SM link.

Student will set reference and test individual cables for dB loss.
Students will examine end faces with fiber inspection scope.

Lab - Splicing

Splicing demonstration from instructor.
Instructor will explain fusion splicer settings, procedures, and maintenance requirements.
Students will strip, clean, cleave, fusion splice short pieces of MM/SM fiber (250 & 900).

Lab – OTDR

Instructor will explain OTDR settings and parameters.
Instructor will show various traces highlighting characteristics of events (dead zone, initial launch, splices, connectors, reflectance, loss, etc)
Instructor will take live shots of sample fiber reels from 3km to 20km
Instructor will create events in "real time" such as macrobends and microbends

Students will perform fusion and mechanical splice thru samples reels to simulate actual fiber segments

Students will perform OTDR testing on their individual splices and demonstrate to instructor how to interpret OTDR event results and span results.

Day 3 (8 HRS)

Lab - OLTS (Testing and troubleshooting)

Link loss budget calculations for MM and SM segments.

Loss testing with OLTS including referencing.

Taking power readings from active fiber equipment. Calculate loss from power readings.

Compare link loss budget to OLTS readings, power calculations, and OTDR loss results.

Lab Cable Preparation-

Instructor will demonstrate sheath removal of indoor cable and OSP, cable prep for various indoor/outdoor enclosures, slack tube storage, bonding, proper measuring/wrapping of fiber strands pre/post splicing.

Students will build OSP enclosure with the following tasks:

-sheath removal
-bonding
-slack tube storage
-pre splice wrapping of fiber strands
-fusion splice fiber strands
-post splice strand wrapping
-tray installations
-proper OSP enclosure closing

Students will build a wall/rack mount enclosure with following tasks:

-sheath removal
-bonding if required
-slack tube storage
-pre splice wrapping of fiber strands
-fusion splice fiber strands
-post splice strand wrapping
-tray installations if required
-proper mounting

Day 4 (8 HRS)

Instructor will review sample RFP for fiber optic project that includes inside and OSP elements.

Students will split into groups and design a BOM and SOW for sample RFP.

Group will present solution to class and instructor.

End of Day CFOT Certification Exam