## Be an Expert

Training Program

Course Outline FE-1044

### Introduction to Dispersion Testing (CD and PMD)

This one-day course provides an overview of general dispersion phenomena occurring in fiber-optic communications, as well as the problems caused specifically by polarization mode dispersion (PMD) and chromatic dispersion (CD). The course also describes the internal workings of EXFO's PMD and CD analyzers and explains how to interpret the result obtained with the instruments. Hands-on exercises on PMD and CD analysis and result interpretation are also included in the curriculum.

#### Content

- > Dispersion phenomena
- > Basic principles of PMD and CD
- > Causes of PMD and CD in the fiber
- > Effects of PMD and CD on the fiber
- > Different types of dispersion
- > EXFO's PMD and CD measurement method
- > Result analysis using pass/fail thresholds

#### **Pre-Requisites**

- > Basic comprehension of physics and mathematics
- > EXFO's FE-1031 Basic Fiber Optics and Loss Testing (IL and ORL) or equivalent

#### Methodology

The first part of this course consists of lectures using PowerPoint presentations and demonstrations, while the second part consists of specific hands-on PMD and CD testing exercises, as well as experiments on total PMD measurement, coefficient calculation, pass/fail result analysis using thresholds, and result interpretation.

#### **Documentation**

Attendees will receive a binder containing copies of presentations and other handouts.





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