

Vision for XDS Instruments

This course is recommended for individuals responsible for collecting sample spectra, modeling data, and performing routine analysis of products. This course, through a combination of lecture and hands-on exercises, explores the theory of NIR, the application of theory through instrumentation, including Reference Standardization and Instrument Calibration, acquiring sample spectra, application of math pre-treatments and population structuring techniques available in Vision, the development of qualitative and quantitative models, and the application of those models in a routine analysis environment.

Part Number: **XT-1005**

Agenda

- Theory of NIR
- The application of NIR theory through FOSS NIRSystems instrumentation
- An overview of Vision software
- Instrument Diagnostics – Reference Standardization, Instrument Calibration
- Software Security including 21 CFR part 11 Compliance features
- Data Acquisition
- Viewing spectral data and file manipulations
- Chemometrics in Vision – derivatives, scatter corrections, special techniques
- Selecting the right samples – Maximum Distance, Mahalanobis Distance, random
- Identifying and Qualifying products – Correlation, Maximum Distance, Mahalanobis Distance, Residual Variance
- Developing a Calibration equation to predict constituent concentration
- Routine Analysis of samples
- Review & discussion
- Customer specific interests

Dedicated Analytical Solutions

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