

### *Publicly offered Spectroscopy courses:*

**Fundamentals of FTIR:** Learn how your FTIR works, insure your instrument is producing the best spectra, and to tackle the thorny problem of mixture analysis.

**Hands-on Infrared Sample Preparation:** Half the battle of obtaining a good spectrum is proper sample preparation. Learn to win that battle with our hands-on Infrared Sample Preparation course.

**Infrared Spectral Interpretation I:** Learn how molecules absorb infrared light, and how to use spectra to perform identities, determine unknowns, and analyze mixtures with our Infrared Spectral Interpretation I training course. The spectra of economically important molecules are emphasized, and students practice interpreting many spectra in class with the help of the instructor.

**Infrared Spectral Interpretation II:** A detailed look at infrared interpretation. Learn what all the features in a spectrum mean, and use this to interpret the spectra of economically important molecules with complex spectra. Students practice interpreting many spectra in class with the help of the instructor.

**Infrared Spectral Interpretation III:** Round out your interpretive skills with this course. Discover how to use library searching and spectral subtraction to pull apart complex spectra so they make sense. Includes a special discussion of inorganic spectra. Students practice interpreting many spectra in class with the help of the instructor.

### *Onsite only spectroscopy courses:*

**Quantitative Spectroscopy: Theory and Practice:** If you ever hope to obtain accurate concentration measurements with a spectrometer, you need to take this course. See how to obtain calibrations on simple and complex mixtures, how to measure calibration quality, and how to successfully implement calibrations.

**Quantitative Infrared Gas Analysis:** Finally, a course devoted exclusively to the FTIR analysis of gases. See how an FTIR works, and how to use it to analyze gases. Learn why infrared gas phase spectra are unique, and how to use this knowledge to identify unknowns. See how to properly obtain and use calibrations to quantitate gas levels in samples.

**Infrared Polymer Analysis:** a must take course for anyone in the plastics and polymers processing industries. Learn how an FTIR works. See how to prepare polymers for infrared analysis to minimize preparation time and maximize spectral quality. See how to interpret simple and complex spectra, and apply this knowledge to the interpretation of polymer spectra.

**Forensic FTIR:** After seeing how an FTIR works, discover how to use an Infrared Microscope to analyze important types of forensic evidence such as paint chips and fibers. See how to prepare liquids and solid controlled substances to maximize spectral quality. Learn how to use library searching to identify molecules with enough confidence to use as evidence in court.

**Infrared Interpretation of Controlled Substances:** We begin with a thorough introduction to the art and science of infrared interpretation. Then, the spectra of a plethora of controlled substances are covered in detail. Be confident next time you testify in court that your interpretation is correct.

