

## Course Description

Designed by experts for chemistry personnel who are responsible for laboratory quality activities, this core course delivers fundamental, defensible knowledge of effective laboratory quality programs and their importance along with practical, hands-on learning and proven techniques. Training materials and activities are specifically tailored to support and enhance an existing Quality Control Program by increasing the knowledge and strengthening the proficiency of new program owners as well as aligning fleet program owners on the basis and implementation of a program.

## Course Information

- Course duration is five days. Detailed course handbooks will be provided upon arrival.
- Attendees are encouraged to bring plant data for group discussion and analysis.

## Course Topics

The course covers the statistical basis for quality control activities and data interpretation, focusing on the equations and requirements of a QA/QC program including:

- ✓ Accuracy
- ✓ Bias
- ✓ Control Limit
- ✓ Mean
- ✓ Outlier Evaluation
- ✓ Precision
- ✓ Relative Error
- ✓ Relative Standard Deviation
- ✓ Standard Deviation
- ✓ Statistical Bias of a Sample Mean
- ✓ Trend Warning Limits
- ✓ Creation and Maintenance of Control Charts
- ✓ Inter-Laboratory Crosscheck Program
- ✓ Intra-laboratory Crosscheck Program
- ✓ Reporting of Data
- ✓ Quality Control Data Review

