





# **GENERAL OVERVIEW OF TECHNOLOGIES**

In this section we will look at some of the more common, newer technologies the new analyzer technician may encounter in their daily work. Some, but not all technologies, include: TDL, Zirconia, pH, gas chromatography, paramagnetic, CEMS, gas density, etc.



### **BASIC CHEMISTRY**

In this section we will take a brief look at chemistry and the role it plays in the daily operation of a plant and how it may affect our analytical equipment and measurements.



### BASIC LOOP MEASUREMENTS

In this section we will look at how to use a multimeter as well as a source meter for checking loops and equipment. We will use a calibrator for checking equipment calibration as well.



# COMMUNICATIONS

In this section we will be looking at the use of different methods of communications for getting the information from our analyzer to the DCS. This will include, analog, HART, Modbus, etc.



### CALIBRATION VS. VALIDATION

In this section we will look at the difference between a calibration and validation and what you need to know before calibrating your analyzer.



### SAMPLE SYSTEM BASICS

In this section we will take a brief look at some basic considerations when troubleshooting an existing sample system.



### DATA ANALYSIS & DOCUMENTATION

In this section we will look at using a spreadsheet to graph and analyze data and use this information for basic troubleshooting. We will learn how to organize the information and present the information in easy to read, concise graphs. We will also discuss the value in proper documentation and some ideas for documenting your work.







