



Course Catalog Number: Ttm-5  
Course Track: Thermodynamic Measurements  
Course Topic: Humidity  
Course Career Level: Beginner

**Sunday, August 25 | 8:00 AM - 12:00 PM | 1/2-Day AM (4 Hours)**

**Course Title: Fundamentals of Humidity Measurement**

**Instructor: Mike Boetzkes, Kinetic Technologies, Inc.**

---

**Abstract:** The science behind humidity measurement will be covered including key terms, formulas and parameters. The effect of pressure and temperature on relative humidity will be explored using the psychrometric chart as a tool as well as available calculators. Selecting the appropriate measurement technology for various applications will be covered, looking at the key advantages, disadvantages and principles of operation of some of the more common measuring technologies. A closer look at instrument specifications will highlight the different components of the instrument specification and how they relate to the overall instrument performance which can be significantly different than the accuracy specification.

**Learning Objectives:**

1. Familiarity with the different parameters used to measure humidity and how the environment can affect the measurements.
2. Students will have an understanding of the different technologies used to measure and generate humidity and when each is applicable.
3. Specifications of instruments will be reviewed to compare the different ways that the instruments are specified.

---

**Instructor Curriculum Vitae (CV):**

Michael is a Metrology and Quality Consultant specializing in relative humidity and temperature measurement. He has been involved with manufacturing and calibration of Temperature and Relative Humidity measurement equipment for 20 years. Michael has led several calibration laboratories through the process of becoming accredited to ISO 17025, ANSI/NCSL Z540.1 and ANSI/NCSL Z540.3. He brings practical and theoretical experience to the audience around calibration process, and uncertainty budget evaluation.