

February 26-28, 2018

The Florida Hotel & Conference Center | Orlando, FL  
1500 Sand Lake Road, Orlando, Florida 32809 | 1-800-588-4656

**TE-8 | Monday & Tuesday, February 26 & 27 | 8:00 AM - 5:00 PM | 2-Day (16 Hours)**

**Course Title: NIST Gage Block**

**Instructor:** Eric Stanfield, National Institute of Standards and Technology (NIST)

**Track:** Mechanical

**Course Description:**

This is a 2-day course on the maintenance, care, use, and proper calibration of gage blocks for dimensional measurements. Included in this seminar will be a discussion of how to best analyze and use master calibration history, gage block stability and predictability, methods for dealing with differential deformation when mechanically comparing dissimilar materials, statistical process control, uncertainty determination...what matters and what doesn't, thermal considerations and strategies, and the propagation of the unit of length through NIST to your master gage blocks (a.k.a., the NIST measurement process).

**Learning Objectives:**

1. Understand the traceability path from the SI unit of length through NIST to customer gage blocks.
2. Learn what uncertainty sources are to be considered for the calibration of gage blocks by mechanical comparison.
3. Understand how statistical process control strategies can be tuned to what is most important based on the uncertainty budget.