Geometric Dimensioning and Tolerancing (GD&T) for Inspectors/CMM Programmers

3-Day Seminar
(~24 hours of instruction; 2.4 CEU’s)

Course Description
This three-day course is an advanced GD&T course designed specifically for those who must operate, program, or interpret the output of measuring and inspection devices.

Objectives
1. Review the concepts of the ASME Y14.5 Standard
2. Expand the participants’ knowledge of GD&T Concepts and the “language” of the ASME Y14.5 Standard as it pertains to inspection techniques and practices
3. Gain confidence in using the ASME Y14.5 Standard
4. Recognize measurement software, hardware, and philosophy strengths and weaknesses
5. Develop work-arounds to overcome measurement devices weaknesses

Benefits/Reasons to Attend
If you are responsible for inspecting, this course is for you. This course is a continuation of education in the ASME Y14.M Standard. In this program, we focus on the application and interpretation of GD&T as it pertains to measurement devices.

Program Outline
The program begins with an in-depth review of GD&T theory and principles, then continues with a practical evaluation of measurement philosophies and capabilities, as well as their pitfalls.

Subject matter covered (as a minimum):
- Introduction - Objectives, review of AGI GD&T “Rememberalls”
- CMM operation – concepts, philosophy, practice, and misconceptions
- CMM software – what is being calculated per the ASME/ANSI Y14.5 Standard and what is not
- Datum Features of Size
- Review of the Datum at Virtual Condition Rule
- Work-arounds for the shortcomings
- Review of actual prints (participant and instructor supplied) including actually measuring on the CMM, if possible

Who Should Attend
This program is designed for those responsible for operating, programming and interpreting the results from a measuring device. The class content is not specific to any particular CMM software package or device manufacturer. Students receive FREE course materials, to which they will refer often!

Prerequisites
Fundamentals of GD&T or equivalent experience and a strong working knowledge of GD&T and measuring techniques.