



## **Advanced Concepts of GD&T Workshop, based on ASME Y14.5M-1994**

This course will meet advanced GD&T needs by building on existing fundamental skills. You'll learn about advanced GD&T concepts like composite tolerancing, datum selection, non-rigid part dimensioning, and many more key dimensioning topics. The course covers a variety of topics from advanced GD&T concepts to the system approach for part dimensioning.

### **Who Should Attend**

This course is ideal for individuals who create or interpret engineering drawings including design, layout, assembly, checking and inspection personnel.

### **Skill Level Needed**

This is an advanced course. In order to understand the course content, you should have:

1. Completed 3 to 4 days of formalized classroom training in GD&T.
2. Have a working knowledge of the ASME Y14.5M-1994 Standard.

### **Course Agenda and Highlights**

- Functional Dimensioning
- Rigid and Flexible Parts
- Restraint Notes on Non-rigid Parts
- Restrained Part Datum System on Non-rigid Parts
- Form Control Applications: Seal, Assembly, Support, Flatness
- Datum System; Ten Common Datum Feature Types
- Datum Target Applications
- Special Datum Applications: Screw Threads, Gears, Splines, Temporary Datum Features
- Tolerance of Position: Modifier Usage, Loss Function Curve Types, Applications
- Simultaneous and Separate Requirements For Tolerance Of Position
- Composite Position Tolerancing
- Multiple Single-Segment Position Tolerancing
- Tolerance of Position Applications with a Conical Tolerance Zone
- Profile Controls, Three Profile Myths
- Simultaneous and Separate Requirements for Profile
- Composite Profile Tolerancing and Multiple Single Segment Profile
- Profile Applications

### **Learning Outcomes**

You will learn to solve real-world problems; understand datum selection, how to reduce product costs, additional profile, form and positional tolerancing, and part calculations. Students who attend this workshop walk away with more than knowledge. They gain on-the-job skills because these materials are performance based and approach the subject from a design perspective.