

# Advanced Geometric Dimensioning and Tolerancing (GD&T)

## 3-Day Seminar

(~24 hours of instruction; 2.4 CEU's)

### Course Description

This course is a comprehensive GD&T course focused on practical application and interpretation.

### Objectives

1. Review of GD&T theory and a thoroughly introduce the more advanced concepts of the Y14.5 Standard.
2. Provide Participants with the knowledge of proper Datum Feature selection and specification
3. Enable participants to properly interpret and apply each of the Y14.5 controls and rules.
4. Instruct participants to calculate functional tolerances for position and other tolerances.
5. Understand the definitions and the effects of Material Condition Modifiers and when to use them.
6. Continue preparing the participants for the ASME GDTP certification exams.

### Benefits/Reasons to Attend

Your drawings have GD&T on them! If you have been through the Fundamentals of GD&T class, and you need more knowledge and skill to increase your effectiveness using GD&T, this course is for you. This program is a continuation of your education in the Y14.5 Standard. Focus is on the application and interpretation of GD&T – bringing participants another step closer to obtaining the knowledge and confidence of a GD&T expert.

*AGI is dedicated to continuing service. Our concern is that the individuals we teach actually retain that which their companies and we have worked so hard to present. This is precisely why we offer, for each participant of any AGI seminar, access to an ASME GDTP Senior certified instructor who will be available to answer follow up questions after the course via e-mail or phone.*

### Program Outline

The program begins with a review of GD&T theory and then continues with practical team exercises designed to enhance knowledge, build confidence and nurture a team environment. The class format is minimum lecture, with maximum experience and participation.

### Subject matter covered (as a minimum):

- Introduction – Objectives and review of fundamental GD&T theory
- General rules of dimensioning and drafting review from a Design, Manufacturing and Inspection point of view.
- Review of more complex controls - composite position, projected tolerance zone, Datum mobility, PLTZF & FRTZF, etc.
- Datum Reference Frames - proper selection and utilization exercises based on “Real World” examples.
- Calculation of Tolerances for maximum producibility and 100% interchangeability.

### Who Should Attend

This program is designed for anyone who is currently familiar and proficient with the concepts and practices of GD&T. Particular emphasis is placed on those who are responsible for specifying, and interpreting, technical documentation. Individuals desiring to become a certified Geometric Dimensioning and Tolerancing Professional (GDTP) by passing the ASME GDTP exam will need this course.

### Prerequisites

Fundamentals of GD&T or equivalent experience.