

Advanced GD&T



Overview

Course Length: 16 – 32 hours (*can be taken via flexible schedule in-center or remotely*)

Description: Your drawings have GD&T on them! If you have been through the GD&T Basic Level, and you need more knowledge and skill to increase your effectiveness, this course is for you. This program is a continuation of your education in the Y14.5 standard. In this program, we focus on the application and interpretation of GD&T - another step closer to becoming a GD&T expert.

Course Objectives/Topics

- Introduction to Advanced GD&T
- Rule #1 Review
- Exception to Rule #1
- Read Feature Control Frame
- General GD&T Application Review
- Simultaneous Requirements
- Features & Symbols
- MMB and LMB
- MMC and MMB
- LMC and LMB
- RFS and RMB
- Virtual and Resultant Condition
- Actual Mating Envelopes
- Datum Terminology Review
- Degrees of Freedom
- Can May Must
- Datum Reference Frame Mobility (Shift)
- Can May Must Examples
- DRF Recommendations
- MMB Calculations
- Patterns of Features as Datum Features
- Coxia Datums
- Rotation Constraints
- Rotation Constraints with Translation Modifiers
- Opposed Plane Datum Feature
- Offset Plane Datum Feature
- Irregular Features of Size as Datum Features
- Measuring Examples
- Flexible Parts
- Custom DRF
- Movable Targets
- Floating & Fixed Fasteners
- AGI's Geometric Design Process
- Design Process Solutions
- Design Process Part 2
- Minimum Wall Exercise
- Extended Principles of Position
- Projected Tolerance Zones
- Composite and Multi-Segment Position
- Composite and Multi-Segment Profile
- Boundary Position
- Closing for Advanced GD&T

Prerequisites

Basic GD&T, or equivalent experience.

Audience

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.

Please note that course material, content, structure and delivery methods are subject to change without notice.