

1-DAY GD&T 2018 UPDATE

COURSE DESCRIPTION

Though released in 2019, the most current standard defining dimensioning and tolerancing practices and their interpretation carries the ASME Y14.5-2018 designation. A revision of ASME Y14.5-2009, it contains many clarifications and improvements on the standard it replaces. Important changes include: concept of feature of size; datum references and degrees of freedom; composite position tolerances; surface boundaries and axis methods of interpretation; profile tolerances; and symbology and modifier tools. This course highlights the most significant of these changes and provides answers to your questions on the added, changed, and deleted content as compared to the previous revision. Don't be left behind following outdated standards, get current with the GD&T ASME Y14.5-2018 update.

LEARNING OBJECTIVES

- Apply and properly interpret profile tolerances in various forms, across a wide variety of applications
- Properly interpret specifications such as radius and controlled radius, confidently in accordance with the standard, instead of via assumption
- Properly interpret datum feature identifiers applied to surfaces, and specify planar datum features
- Apply alternatives to concentricity and symmetry with deep understanding of the geometric controls available to locate features
- Recognize where ambiguity exists on drawing specifications and learn strategies for dealing with it

WHO SHOULD ATTEND

This course is designed for mechanical design engineers and engineering technicians supporting them in the design of mechanical components and definition of engineering requirements.



DYNAMIC DESIGN CONSULTING, LLC

www.dynamicdesignconsulting.com

1-DAY GD&T 2018 UPDATE

COURSE OUTLINE

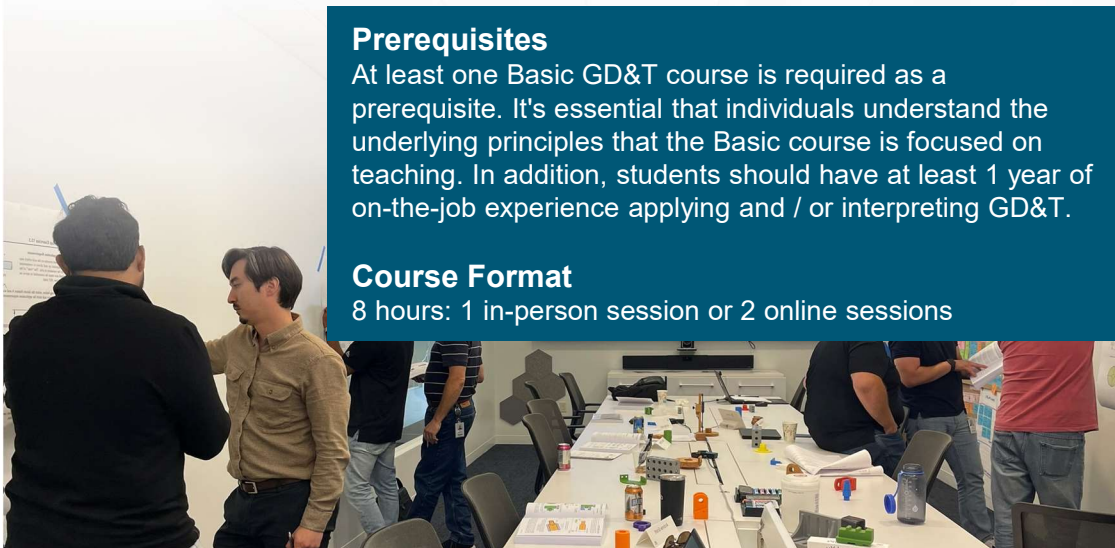
- **Changes to language and terminology:** Angularity, Least material boundary, Datum target, Feature, Free state, Irregular feature of size, Runout
- **Added Definitions:** Common datum, Continuous feature, Continuous feature of size, Interruption, Represented line element, Restrained, True geometric counterpart
- **Deleted terms:** Concentricity, Free state variation, Restraint, Symmetry, Theoretical datum feature simulator
- **Additions to the standard:** Non-uniform profile using the from-to symbol, Relaxation of size requirements using the dynamic profile symbol
- **Expansion and clarifications of the standard:** Restrained condition and free state modifier, Continuous feature, Radius, Controlled radius, Profile in a note, Runout
- **Changes to interpretation:** Default stabilization for datums, Surface interpretation vs. Axis interpretation for position at MMC
- **Deletions from the standard:** Concentricity and symmetry, Graphical representation of unequally disposed profile
- **Emphasis shift:** Ambiguity of plus/minus tolerancing applied to surfaces, Expanded use of model-based dimensioning and tolerancing

Prerequisites

At least one Basic GD&T course is required as a prerequisite. It's essential that individuals understand the underlying principles that the Basic course is focused on teaching. In addition, students should have at least 1 year of on-the-job experience applying and / or interpreting GD&T.

Course Format

8 hours: 1 in-person session or 2 online sessions



DYNAMIC DESIGN CONSULTING, LLC

www.dynamicdesignconsulting.com

