National Measurement Institute



FUNDAMENTALS OF GEOMETRICAL DIMENSIONING AND TOLERANCING COURSE

This fully interactive course is based on ASME Y14.5-2018 standard. You will learn about the symbols, modifiers, rules and concepts of geometric dimensioning and tolerancing (GD&T). The course is recommended for all individuals who create or interpret engineering drawings; product and gauge designers; process, product, and manufacturing engineers; supplier quality engineers; CMM operators; buyers/purchasers; inspectors; technicians; and sales engineers.

Course Objectives

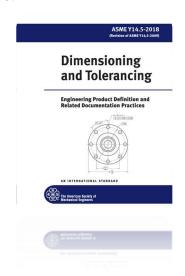
The course provides participants with knowledge and skills to:

- understand the benefits of geometric tolerancing
- know GD&T symbols and how to apply them to drawings
- interpret datum reference frame and select datum features
- · recognise when a specification is incomplete or incorrect

Course Outline

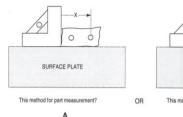
The topics covered include:

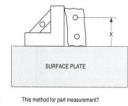
- engineering drawings and tolerancing
- geometric tolerancing symbols and terms
- rules and concepts of GD&T
- form controls
- datum system
- orientation controls
- tolerance of position
- runout controls •
- profile controls



Learning to interpret and apply GD&T properly will help you and your company to:

- Save money at the design stage
- Communicate design intent more clearly to all levels of production and inspection
- Increase part tolerances
- Assure that mating parts will assessable
- Reduce scrap
- Enable global sourcing
- Reduce drawing errors
- Increase productivity
- Improve inspection accuracy and repeatability





Course Details

Dates / Venue

Available dates are on our website.

Fee / Inclusions

Check the NMI <u>website</u> for the online current price and delivery options with the following learning resources:

- The Fundamentals of GD&T Using Critical Thinking Skills (ASME Y14.5-2018), by Alex Krulikowski
- A 2018 GD&T Ultimate Pocket Guide

Time

The will start at 9 am and will finish by 5 pm.

Related Courses

Course name	Duration	Dates
Fundamentals of GD&T based on ASME Y14.5-2009 standard	2 days	On request
Fundamentals of GD&T based on ISO standards	2 days	See NMI website
Advanced concepts of GD&T	2 days	On request
Dimensional measurement	2 days	See NMI website

In-house Options

Consultancies provide advice regarding specific measurement issues or training in advanced measurement techniques. More information is found on our <u>website</u>.

Contact Us

Phone (02) 8467 3796, or send an email to <u>training@measurement.gov.au</u>. For more information about the National Measurement Institute, visit our <u>website</u>.