



### AUTHORITATIVE GEOMETRIC DIMENSIONING AND TOLERANCING RESOURCES



CONNECTING THE GREATER ENGINEERING COMMUNITIES

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# Critical GD&T training and resources for engineers of all skill levels

Geometric Dimensioning and Tolerancing (GD&T) is the language that connects the greater engineering community. A sharpened GD&T skill set helps engineering professionals improve the quality of their work, reduce costs, and shorten delivery time. SAE International is your source for GD&T knowledge — seminars, training tools, textbooks, and on-the-job resources. From entry-level engineering graduates to seasoned professionals striving to enhance their expertise, SAE provides training to thousands of companies, corporations, and educational organizations worldwide.

# LEVERAGE GD&T RESOURCES ON THE FOLLOWING TOPICS:

- Engineering Drawing Requirements
- Fundamentals and Advanced Concepts of GD&T
- Applications of GD&T
- Critical Concepts of Tolerance Stacks
- Introduction to Statistical Tolerance Stacks
- Fundamentals of GD&T for Inspectors
- And more

#### EXPLORE OUR BROAD ARRAY OF TOOLS AND SERVICES

Take advantage of learning resources developed by knowledgeable and experienced industry experts.

- Professional development seminars and classroom courses led by experienced ASME certified instructors
- Textbooks and workbooks
- Computer-based training
- Online learning center
- Pocket guides and other reference materials
- And more

SAE is your source for GD&T knowledge | sae.org/gdt

# The Levels of GD&T Proficiency

GD&T PROFICIENT

1

3

4

5 |

### CRITICAL CONCEPTS OF TOLERANCE STACKS

Understand the six critical concepts of tolerance stacks. Analyze the cumulative effect of tolerances to create tolerances on parts and assemblies. Learn an in-depth explanation of how to use tolerance stacks to analyze product designs and how to use geometric tolerances in stacks. Learn the essential methods and concepts used for creating 1D part and assembly tolerance stacks.

6

5

# INTRODUCTION TO STATISTICAL TOLERANCE STACKS

Apply statistical methods (RSS, realistic, RPL and Monte Carlo methods) to tolerance stacks.

**PREREQUISITES:** Critical Concepts of Tolerance Stacks

#### **APPLICATIONS OF GD&T**

Apply GD&T to drawing and convert product requirements into GD&T specifications. Learn how to do a design function analysis on a part assembly and specify GD&T on assembly components using company drawings.

4

3

#### ADVANCED CONCEPTS OF GD&T

Understand part requirements and interpret complex GD&T specifications on drawings. An emphasis on non-rigid parts; learn to create statements of complex relationships through simultaneous requirements, composite and multiple single-segment tolerances. In-depth explanation of geometric tolerancing symbols, their tolerance zones, applicable modifiers, common applications, and limitations.

#### **FUNDAMENTALS OF GD&T**

Understand part requirements and interpret common GD&T specifications on drawings using critical thinking skills. An in-depth explanation of geometric tolerancing symbols, their tolerance zones, applicable modifiers, common applications, and limitations.

**PREREQUISITES:** Engineering Drawing Requirements

2

1

#### ENGINEERING DRAWING REQUIREMENTS

A basic class that is useful for all drawing creators and users. Overview course teaches correct interpretation of engineering drawings and covers drawing standards, drawing types, format, views and surface textures.

**PREREQUISITES:** Basic understanding of engineering drawings

Awareness



Application/Analysis

## WHY SAE FOR GD&T TRAINING?

- Accurate, high-quality course content developed utilizing methods and principles from globally recognized GD&T expert, Alex Krulikowski.
- Courses taught by instructors with 10+ years of GD&T experience and standards expertise ensure relevant and effective instruction
- Proven training methods and high-value in-course materials offer useful resources and ongoing knowledge reinforcement
- Pre- and Post-training assessments evaluate understanding of topics and success of training
- Competitive pricing provides quality training within your budget
- Flexible scheduling to fit your timetable
- Scalability for groups of all sizes and experience levels means you can train your whole team no matter their knowledge-level

# COURSE REGISTRATION AND PRODUCT ORDERING

To browse our full range of products and register for courses: Visit **sae.org/gdt** 

#### **NEED TO TRAIN YOUR WHOLE TEAM?**

Bring an expert instructor to your site to conduct hands-on GD&T training for your full staff. Find out how your company's drawings and parts can be utilized in our classroom courses. Contact SAE GD&T Sales to learn more about hosting GD&T training at your location.

#### **SAE GD&T SALES**

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