

GEOMETRIC DIMENSIONING AND TOLERANCING PER ASME Y14.5-2009 COURSE OUTLINE (3.0 Days)

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*This course outline will be adjusted based on
the GD&T competency needs of the participants*

Day One

- **Getting Started**

- Course Purpose, Objectives, and Content
- Personal Introductions (Participants and Instructor)
- Explanation of Training Materials
- Identifying Participant's Learning Needs and Expectations

- **Introduction**

1. Drawing Standards
2. Dimensions, Tolerances, and Notes Used on Drawings
3. Coordinate Tolerancing and Geometric Dimensioning and Tolerancing
4. General Dimensioning Symbols

Exercises and Applications

- **GD&T Fundamentals**

5. Key GD&T Terms
6. Symbols and Modifiers
7. GD&T Rules
8. GD&T Concepts

Exercises and Applications

Day Two

- **Form Controls**

9. Flatness
10. Straightness
11. Circularity
12. Cylindricity

Exercises and Applications

- **Datum System**

13. The Datum System
14. Datum Targets
15. Size Datum Features (RMB)
16. Size Datum Features (MMB)

Exercises and Applications

- **Orientation Controls**

17. Perpendicularity
18. Parallelism
19. Angularity

Exercises and Applications

Day Three

- **Position**

20. Position Tolerance Introduction
21. Position Tolerance – RFS and MMC
22. Position Tolerance – Special Applications
23. Position Tolerance – Calculations

Exercises and Applications

- **Runout, Concentricity, and Symmetry**

24. Circular and Total Runout Tolerances
25. Concentricity and Symmetry Tolerances

Exercises and Applications

- **Profile Controls**

26. Profile Tolerance Basic Concepts
27. Profile Tolerance Applications

Exercises and Applications