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Advanced Geometrical Dimensioning & Tolerancing
(3 days)

Date	Topic
Day1	Review of Fundamentals of GD&T
	Taylor Principle (GD&T Limits of Size Rule)
	RFS and MMC Principles for Features of Size
	Functional Gauge Design Examples
	Application of Straightness and Flatness on Unit Basis
	Least Material Principle for Features of Size
	Geometric Controls with Free State Variation for non-rigid parts
	Datum Reference Frame & 3-2-1 Principle
	Specialized Datum Applications; Inclined Datum Features; Datum Targets
	Defining of datums out of a group of features
	Exercises
Day2	Specifying orientation tolerance with Tangent Plane Modifier
	Orientation of derived features (Axis & Mid-plane)
	Specifying Datum Features at MMC (Datum Shift)
	Projected Tolerance Zone Modifier
	Positional Tolerancing relative to Datum Feature Centre Planes
	Specifying MMC Modifiers with Zero Geometric Tolerance
	Bidirectional Positional Tolerancing
	Composite Position Tolerance applied to Linear and Circular Patterns of features
	Difference between concentricity and Coaxiality Controls
	Positional Tolerancing of Symmetrical features at RFS and MMC with reference to two datums
	Exercises

Day3	Multiple Single Segment Position Tolerance Controls applied to Linear and Circular Pattern of Features
	Simultaneous and Separate Requirements for Positional control of Patterns of Features
	Positional Tolerancing for elongated holes, Boundary Concept
	Profile Tolerance for controlling Coplanarity of the surfaces
	Composite Profile Tolerancing
	Specifying Combined Profile and Orientation tolerances
	Boundary Principle used with Profile Controls
	Discussions on some practical aspects of geometrical accuracy measurements
	Exercises
	Questions and Answers