NX CAD for Design Engineer

Course Curriculum (Duration: 90 Hrs.)

Prerequisites: Students attending this course should be familiar with Engineering Drawing, Machine Drawing, Limits, Fits and Tolerances.

Chapter 1: Essentials for NX Designers

Overview:
Opening and working with parts NX Interface:
Coordinate Systems:
Creating parts with sketches:
Creating part features:
Geometry Editing
Creating datum geometry to support design intent Examining the structure of a model
Editing and manipulating the sketches Trimming a solid body
Creating swept features with offset and draft Creating and editing holes
Creating and manipulating shell features
Copying and mirroring part segments
Blending and chamfering edges
Modifying geometry of imported parts
Loading and working with assemblies
Adding and positioning parts in an assembly

Chapter 2: NX Synchronous Modeling Fundamentals

Basic concepts of Synchronous Modeling Modify Face
Detail Feature
Delete Face
Reuse commands
Synchronous Modeling relationships Dimension commands
Adaptive Shell
Edit Cross Section and Edit Section Optimize Face
Projects: Create and edit parts using Synchronous Modeling

Chapter 3: NX Sheet Metal

Sheet Metal workflow
Establish basic part characteristics
Define the basic shape of the part

Constructing base features
Sheet Metal corners
Sheet Metal cutouts
Sheet Metal deform features
Flat Solid and Flat Pattern
Advanced Sheet Metal commands
Analyze Formability – One step
Aerospace Sheet Metal
Working with non-sheet metal data

Chapter 4: Drafting Essentials

Drafting overview
Part Navigator
Master model drawings and drafting
standards Drawing sheets
Drafting views
Custom views
Move, copy, and align views
Hiding geometry in drafting views
Updating drawings and drafting
views Centerline symbols
Dimensions
Notes and labels
Balloon symbols
GD&T symbols
Surface finish, weld, and custom
symbols Section views
Editing section lines
Maintaining associativity
Detail views
View boundaries
Broken views
Break-out section
views View dependent
edits Part Attributes
Parts lists
Sectioning assembly
views Exploded views
Ordinate dimensions
Hole Tables
Converting drawings to master model

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