



Computer Aided Design using Solid Edge Course Curriculum (Duration: 60 Hrs.)

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

Chapter 1: Sketching

- 3D Sketching Overview
- Sketch Plane Locking
- Drawing synchronous sketches of parts
- Drawing ordered sketches of parts
- Drawing commands
- Sketch geometric relationships
- Dimensioning sketches
- Sketches in PathFinder
- Sketch plane origin
- Sketch consumption and dimension migration
- Moving sketches
- Projecting elements onto a sketch plane
- Sketching instructional activities

Chapter 2: Constructing base features

- What is base feature?
- Part modeling
- Creating base features
- Creating subsequent features
- Model Dimensions
- Coordinate Systems
- Sets

Chapter 3: Moving and rotating faces

- Part modification by moving and rotating faces and planes
- Moving synchronous faces
- Selecting faces
- Move face command bar options
- Working with Live Sections

Chapter 4: Working with face relationships

- Face relationships overview
- Creating face relationships
- Detected face relationships
- Using variables

Chapter 5: Constructing treatment features

- Treatment features

- Rounding and blending
- Chamfer command
- Adding draft to parts
- Thickening and thinning parts

Chapter 6: Constructing functional features

- Functional features
- Hole command
- Pattern features
- Feature libraries
- Detaching and attaching faces and features
- Cutting, copying and pasting model elements
- Mirror
- Replace Face command
- Plastic design features

Chapter 7: Modeling synchronous and ordered features

- Modeling synchronous and ordered features
- Modeling ordered features activities

Chapter 8: Modeling Assemblies

- Solid Edge Assembly
- More Assembly Relationships
- The Assemble command
- Designing in the context of an assembly
- Assembly features
- Assembly patterning
- Assembly systems libraries
- Working with large assemblies
- Inspecting assemblies
- Replacing parts in an assembly

Chapter 9: Sheet Metal Design

- Sheet Metal overview and definitions
- Terminology
- Material Table command
- Gage Tab
- Starting sheet metal design
- Sketching
- Base Features
- Contour Flange
- Flanges, corners and bend relief
- Hem, Jog and Deformation features
- Creating flat patterns

Chapter 9: Surface Modeling

- Surface Construction
- Creating and editing curves
- Indirect curve creation techniques
- Surface Creation
- Surface manipulation tools
- Curve and surface inspection tools

Chapter 10: Creating detailed drawings

- Creating detailed drawings
- Drawing production
- Drawing creation
- Dimensions, Annotations and Parts Lists
- Detailing a drawing

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