

SOLIDWORKS Advanced Part Modeling

LENGTH: 3 DAYS

Prerequisites: SOLIDWORKS Essentials

Description: Advanced Part Modeling teaches you how to use multibody solids, sweeping and lofting features, and the more advanced shaping capabilities of SOLIDWORKS.



Topics covered in this course are:

Introduction

- About This Course
- Using this Book
- Windows® 7
- Use of Color
- Hide/Show Tree Items

Lesson 1:

Multibody Design Techniques

- Multibody Solids
- Multibody Techniques
- Case Study: Multibody Design
- Introducing: Solid Bodies Folder
- Feature Scope
- Patterning Bodies
- Tool Body Technique
- Introducing: Insert Part
- Introducing: Move/Copy Bodies
- Combining Bodies
- Common Bodies
- Intersect with Solid Bodies
- Introducing: Intersect
- Calculating Internal Volume
- Local Operations
- Indent Feature
- Introducing: Indent
- Deleting Solid Bodies
- Introducing: Delete Body

Lesson 2: Saving Solid Bodies

- Saving Solid Bodies as Parts and Assemblies
- Using Cut to Create Multiple Bodies
- Insert into New Part
- Saving Bodies
- Modeling for Rapid Tooling
- Splitting a Part into Multiple Bodies
- Introducing: Split
- Creating an Assembly
- Using Split Part with Legacy Data

Lesson 3: Sketching with Splines

- Curves in Sketches
- Splines
- Introducing: Spline Tools
- Evaluating Curvature Combs
- Introducing: The Control Polygon
- Introducing: Spline Handles
- Analyzing Solid Geometry
- Introducing: Display Curvature
- Introducing: Zebra Stripes
- Style Spline
- Sketch Picture
- Fit Spline

Lesson 4: Introduction to Sweeping

- Sweeping
- Case Study: Faux Raised Panel Door
- Sweep with Guide Curves
- Case Study: Bottle Body
- Pierce Relation
- Sweep with Guide Curves
- The SelectionManager
- Case Study: Hanger Bracket
- Symmetrical Splines
- Dome Feature

Lesson 5: Working with Curves

- Curve Features
- Case Study: Modeling a Spring
- Sweeping Along a 3D Path
- 3D Sketching
- Helix Curve
- Introducing: Projected Curve
- Composite Curve
- Applying the Label Outline to the Bottle
- Performance Considerations
- Modeling Threads
- Blower Housing
- Sweeping Along Model Edges
- Introducing: Split Line

Lesson 6: Advanced Sweeping

- Sweep Options
- Orientation and Twist Control
- Introducing: Intersection Curve
- Face Curves
- Align with End Faces
- Solid Sweep
- Defining Twist
- Introducing: Equation Driven Curve

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Lesson 7: Boundary Feature and Lofting

- Comparing Complex Features
- How Lofting and Boundary Work
- Loft vs Boundary Feature
- Introducing: Loft
- Boundary Feature
- Using Derived and Copied Sketches
- Copying a Sketch
- Modify Sketch
- Introducing: Modify Sketch
- Derived Sketches
- Introducing: Derived Sketch5
- Boundary Preview Options
- Sketch Block and Library Feature
 - Profiles
- Additional Curves in Loft and Boundary
- Centerline Lofting
- Loft Preview Options
- Introducing: Split Entities

- Cleaning Up a Model
- Deleting Faces
- Introducing: Delete Face
- Evaluating Edges
- Introducing: Deviation Analysis
- Lofting with Guide Curves
- Curve Influence
- Hook Using Boundary
- Conics
- Introducing: Curve Through XYZ
- Sketch Blocks

Lesson 8: Other Advanced Tools

- Advanced Filletting
- Delete Face: Delete and Fill
- Wrap Feature
- Introducing: Wrap
- Deform Feature
- Introducing: Deform
- Introducing: Knit Surface
- Direct Editing
- Introducing: Move Face



Training Registration

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