SolidWorks Part Modeling

**Length:** 2 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.

The topics covered in this course are:

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

- **Lesson 1: Sketching with Splines**
  - Sketching Splines
  - Introducing: Spline
  - Introducing: Show Curvature Combs
  - Sketch Picture
  - Introducing: Sketch Picture
  - Review

- **Lesson 2: Multibody Solids: How They Work**
  - Multibody Solids
  - Multibody Techniques
  - Introducing: Solid Bodies Folder
  - Feature Scope
  - Patterning Bodies
  - Tool Body
  - Introducing: Insert Part
  - Introducing: Move/Copy Bodies
  - Combining Bodies
  - Introducing: Combine

- **Lesson 3: Uses of Multibody Solids**
  - Common Bodies Indent Feature
  - Introducing: Delete Body
  - Local Operations
Modeling Negative Space
Using Cut to Create Multibodies
Saving Solid Bodies as Parts and Assemblies
Introducing: Insert into New Part
Introducing: Save Bodies
Splitting a Part into Multibodies
Introducing: Split Creating an Assembly
Introducing: Create Assembly
Using Split Part with Legacy Data

Lesson 4: Introduction to Sweeping
Sweeping
Case Study: Faux Raised Panel Door
Sweep with Guide Curves
Case Study: Bottle
Sweep Options
Sweep with Guide Curves
Introducing: Dome
Introducing: SelectionManager

Lesson 5: Working with Curves
Case Study: Modeling a Spring
Sweeping Along a 3D Path
3D Sketching
Introducing: Helix and Spiral
Introducing: Projected Curve
Introducing: Composite Curve
Introducing: Fit Spline
Applying the Label to the Bottle
Modeling Threads
Case Study: Creating a Curve Through a Set of Points
Sketch Blocks
Introducing: Sketch Blocks
Equation Driven Curves
Introducing: Equation Driven Curve
Introducing: Split Line

Lesson 6: Advanced Sweeping
Orientation and Twist Control
Align with End Faces
Sweeping Along Model Edges
Sweeping a Tool Body

Lesson 7: Lofts
Lofting and Sweeping: What’s the Difference?
How Lofting Works
Basic Lofting
Introducing: Loft
Using Derived and Copied Sketches
Copying a Sketch
Derived Sketches
Introducing: Insert Derived Sketch
Centerline Lofting
Introducing: Split Entities
Cleaning Up a Model
Introducing: Delete Face
Introducing: Deviation Analysis
Advanced Lofting
Layout Sketches
Boundary Feature

Lesson 8: Other Advanced Tools
Advanced Fillets
Analyzing Geometry
Introducing: Display Curvature
Introducing: Intersection Curve
Introducing: Zebra Stripes
Introducing: Wrap Feature Deform Feature
Introducing: Deform
Introducing: Knit Surface
Move Face and Delete Face
Introducing: Move Face
Performance Considerations