

SOLIDWORKS Sheet Metal

OVERVIEW

INSTRUCTOR-LED ONLINE LENGTH: 3 days

PREREQUISITES: Mechanical design experience; completion of SOLIDWORKS Essentials or similar experience.

DESCRIPTION: The SOLIDWORKS Sheet Metal course will teach you how to build standalone sheet metal parts and convert conventional parts to sheet metal in assembly context.

LESSON 1:

BASIC FLANGE FEATURES

- What are Sheet Metal Parts?
- Sheet Metal Methods
- Base Flange
- Sheet Metal Parameters
- Editing Sheet Metal Parameters
- Sheet Metal Bend Features
- Flat-Pattern Feature
- Additional Flange Features
- Edge Flanges
- Editing the Flange Profile
- Edge Flanges on Curved Edges
- Miter Flanges
- Hem Feature
- Tab Features
- Cuts in Sheet Metal
- Summary of Flange Features

LESSON 2:

WORKING WITH THE FLAT PATTERN

- Working with the Flat Pattern .
- Flat Pattern Settings
- Features for Manufacture
- Corner-Trim Feature
- Corners in the Formed State
- Closed Corner
- Corner Relief
- Break Corner/Corner Trim
- Producing the Flat Pattern
- Sheet Metal Cut List Properties
- Flat Pattern Drawing Views
- Flat Pattern View Properties
- Drawing Document Properties
- Sheet Metal Tables
- Cut List Properties as a Note
- Exporting the Flat Pattern

LESSON 3:

ADDITIONAL SHEET METAL TECHNIQUES

- Additional Sheet Metal Methods
- Designing from the Flat
- Sketched Bend Feature
- Jog Feature
- Adding Features in an Unfolded State
- Unfold and Fold
- Swept Flange
- Swept Flange Flat Pattern Options
- Lofted Bends
- Lofted Bends in the Design Library

LESSON 4:

CONVERTING TO SHEET METAL

- Sheet Metal Conversion
- Insert Bends Method
- Imported Geometry to Sheet Metal
- Adding Rips & Inserting Bends
- Making Changes
- Welded Corner
- Converting Cones and Cylinders
- Convert to Sheet Metal

 **SOLIDWORKS** Sheet Metal**LESSON 5:****MULTIBODY SHEET METAL PARTS**

- Multibody Sheet Metal Parts
- Multibodies with Base Flange
- Sheet Metal Parameters for Multibodies
- Cut List Item Properties for Multibodies
- Flat Pattern Drawing Views for Multibodies
- Cut List Balloon Annotations
- Exporting to DXF/DWGs with Multibodies
- Convert with Multibodies
- Hiding and Showing Bodies
- Using Split with Sheet Metal Parts
- Patterning for Multibodies
- Using Edge Flanges to Merge Bodies
- Interfering Bodies
- Combining Sheet Metal with Other Bodies

LESSON 6:**FORMING TOOLS AND GUSSETS**

- Sheet Metal Forming Tools
- Standard Forming Tools
- Form Tool Features in the Flat
- Part Document Properties
- Custom Forming Tools
- Split Line
- Forming Tool
- Form Tools in Drawings
- Sheet Metal Gusset

LESSON 7:**ADDITIONAL SHEET METAL FUNCTIONS**

- Additional Sheet Metal Functions
- Cross-Breaks
- Vent Features
- Mirror Part
- Tab and Slot
- Process Plans
- Sheet Metal Costing