Course: SE2025 Sheet Metal Fundamentals

Duration: 2 days

Version: SE 2025

At Course Completion

Students will have learned how to utilize Solid Edge Sheet Metal to design production level parametric (ordered) models of sheet metal parts, and synchronous models of sheet metal parts.

Prerequisites

Here are the standard pre-requisites for the training course. Potential students should have or completed the following prior to the class:

- Mechanical Design Experience
- Windows Experience
- **Completion of the Solid Edge Fundamentals course.**
- Have a good understanding of the part modeling in both **Ordered** and **Synchronous** paradigms.

This course builds upon techniques taught in the Fundamentals course. It is assumed that any student taking this course will already know how to sketch and model parts, in both ordered and synchronous paradigms, and has a good understanding of the Solid Edge user interface.

Course Content

Course consists of;

- 7 Video Lectures (PowerPoints and instructor lead demonstrations).
- 25 practical activities to reinforce the lessons.

Topics:

Day 1

Lesson 1: Sheet Metal Design Introduction

Introduction to the Sheet Metal Environment

- Tab command
- Contour Flange command
- Lofted Flange command
  - Lofted bends and bend lines
  - Vertex mapping

Lesson 2: Sheet Metal Design Additional features

- Flange command
- Flange options
- Partial Flanges
- Multi-edge Flange command
- Bend commands
- Jog Command

Lesson 3: Sheet Metal Features

- Closed Corner
- Break Corner
- Hems
- Cutout features
- Holes
- Patterns

Lesson 4: Deformation Features and Flat Patterns

- Dimple and Drawn Cutout
- Bead, Louvre, and Gussets
- Cross-Brake Feature
- Flat Patterns
- Save as Flat
- Etch command
- Stencil Fonts

Day 2

Lesson 5: Synchronous Sheet Metal

- Tab
- Flange
- Contour Flange
- Close bend corners
- Hem
- Jog
- Bend

Lesson 6: Synchronous Sheet Metal Features

- Feature Origin
- Feature Profiles
- Editing procedural features
- Louvers
- Dimple and Drawn Cutout
- Bead and Gusset Features
- Break Corner
- Cutout Across Bends
- Holes
- Mirror and Pattern commands

Lesson 7: Synchronous functions unique to Sheet Metal

- Synchronous Sheet Metal Manipulation
- Flat Patterns
- Integrated modeling

Note: The number of lessons covered on any given day could vary due to the progress of the student.