

# Autodesk Inventor Sheet Metal Design

## Courseware Description

This courseware covers the fundamental principles of sheet metal design using Autodesk® Inventor™. Students learn how to create and manage sheet metal designs. The course focuses on basic sheet metal concepts and techniques, and builds on them to include complex modeling practices for forming sheet metal parts, assemblies, and drawings.

Hands-on exercises representing real-world, industry-specific design scenarios are included.

**Suggested Course Duration:** 2 days  
**Pages:** 392  
**Onscreen Exercises Included?** Yes

## Objectives

The primary objective of this course is to teach students the skills needed to create and document sheet metal parts. After completing this course, the student will be able to describe terms and sheet metal processes that are used in industry, review various construction techniques, create and automate sheet metal design tools, and document sheet metal designs.

## Who Should Attend

This course is designed for Autodesk Inventor users who want to learn the essential tools and best practices for sheet metal design using Autodesk Inventor.

## Prerequisites

Students should have completed the *Autodesk Inventor Essentials* course or have an equivalent understanding of the Autodesk Inventor user interface and working environments. A working knowledge of parametric solid modeling concepts, and design or mechanical engineering experience is a plus. It is also recommended that the student have a working knowledge of Microsoft® Windows® XP or Microsoft® Windows® 2000.

# Course Outline

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## Sheet Metal Overview

- Introduction to Sheet Metal Design
- Sheet Metal Design Methods
- Sheet Metal Styles

## Working with the Sheet Metal Environment

- Faces
- Flanges
- Contour Flanges
- Hems

## Advanced Sheet Metal Tools

- Cutting
- Punching
- Corner Seams
- Using the Fold Tool to Create Sheet Metal Parts
- Bending
- Corner Rounds and Corner Chamfers

## Sheet Metal Design Techniques

- Sheet Metal Design Approaches
- Skeletal Modeling Techniques
- Utilizing Legacy DXF/DWG Flat Layout Geometry
- Importing 3D Geometry
- Complex Sheet Metal Creation Techniques
- Punch Library Setup

## Using Flat Patterns

- Flat Pattern Creation & Options
- Exporting Flat Patterns

## Documenting Sheet Metal Designs

- Setting up the IDW for Sheet Metal Drawings
- Creating Sheet Metal Drawings

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**Note:** The suggested course duration is a guideline. Course topics and duration may be modified by the instructor based upon the knowledge and skill level of the course participants.