

Autodesk Inventor Advanced Assembly and Machine Design

Courseware Description

This courseware covers the recommended workflows and advanced functionalities for creating 3D assemblies using Autodesk® Inventor™. Students learn the proper techniques and recommended workflows for skeletal modeling, adaptive design, derived design, and functional design. Students also learn how to quickly create steel frame designs, create and document welded designs, and publish custom parts using the Content Center.

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

Suggested Course Duration: 2 days
Pages: 444
Onscreen Exercises Included? Yes

Objectives

The primary objective of this courseware is to teach students the recommended workflows and advanced skills needed to create and modify complex assembly designs in Autodesk Inventor. After completing this course, the student will be proficient in advanced assembly modeling techniques.

Who Should Attend

This courseware is designed for experienced Autodesk Inventor users.

Prerequisites

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

Course Outline

Day 1

Derived Design

- Parameters
- Deriving Geometry
- Skeletal Modeling Techniques
- Creating Frames with the Frame Generator
- Modifying Frames

Adaptive Design

- Introduction to Adaptive Design
- Cross-Part Projection Techniques
- Adaptive Design Between Separate Components

Day 2

Content Center

- Overview of Content Center
- Publishing Parts
- Using the Content Center

Design Accelerator

- Introduction to the Design Accelerator
- Bolted Connections
- Shaft Generator
- Gear Generator
- Belt Generator
- Calculators

Welded Designs

- Introduction to Weldments
- Creating Welds
- Documenting Weldments

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.

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