
Inventor

3 Days
24 AIA/CES



Course Description

Designed to teach the fundamentals of working with Inventor, this hands-on course is intended to teach students about the necessary tools, concepts, and workflows used when working with Autodesk Inventor.

The doors open at 8:45 a.m. Class begins at 9:00 a.m. and ends at 5:00 p.m. with two fifteen minutes breaks and a one hour lunch. We have bagels and coffee served in the morning upon arrival. A book and a certificate of completion are included in this fee.

Objectives

The primary objective of this course is to teach students the basic skills necessary to become proficient with creating and editing parts and assemblies using Autodesk Inventor.

After completing this course, students should be able to:

- Navigate within the inventor user interface
- Use the fundamental features of Inventor
- Create parts, assemblies, and subassemblies
- Incorporate engineering principles

Who Should Attend

This course is designed for new users of Autodesk Inventor.

Prerequisites

Before attending this course, students should have a working knowledge of the following:

- Manufacturing drafting, design, or engineering
- Microsoft Windows

Course Outline

Introduction to Inventor

- The Inventor Interface
- Model Manipulation

Creating the Base Feature

- Solid Base Features

Sketching Geometry

- Sketch Geometry
- Advanced Editing Tools
- Using Existing Geometry
- Over-Dimensioned Sketches
- Sketch Preferences

Sketched Secondary Features

- Extruded Secondary Features
- Revolved Secondary Features
- Editing Sketched Secondary Features
- 3D Grip Modification

Creating Pick and Place Features

- Chamfer
- Fillets
- Variable Fillets
- Face Fillets
- Holes
- Threads
- Editing Pick and Place Features
- Creation Sequence

Work Features

- Work Planes
- Work Axes
- Work Points

Equations

- Equations
- Parameters

Additional Features

- Face Draft
- Splitting a Face or Part
- Shells
- Ribs
- Bend Part

Model and Display Manipulation

- Reordering Features
- Inserting Features
- Suppressing Features
- Section Views
- Design Views

Fixing Problems

- Sketch Failure
- Feature Failure

Sweep Features

- Sweep Features

Loft Features

- Rail Lofts
- Center Line Lofts
- Advanced Loft Options

Duplication Tools

- Rectangular Sketch Patterns
- Circular Sketch Patterns
- Rectangular Feature Patterns
- Circular Feature Patterns
- Mirror Parts or Features
- Manipulate Patterns and Mirror Features

Feature Relationships

- Establishing Relationships
- Controlling Relationships
- Investigating Relationships
- Changing Relationships

Model Information

- Measurement Tools
- Model Properties
- Changing Part Units

Drawing Basics

- New Drawing Views
- Manipulating Views

Detailing Drawings

- Dimensions
- Styles and Standards
- Hatching

Drawing Annotations

- Text
- Symbols
- Hole and Thread Notes
- Chamfer Notes
- Center Marks and Center Lines
- Hole Tables
- Revision Tables and Tags

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 participant