

## Autodesk Inventor – Advanced Assembly Modeling

In this class, we will provide you with a deeper knowledge of the interworking's of the Inventor Assembly environment. Learn how Inventor functionality can be applied to your design process through the use of advanced design techniques. Using Multi-Body, Derived, Frame Generator, Design Accelerator and other functionality to create designs from the Top-Down or Bottom-Up.

### Duration

3 days

### Who should attend?

Drafters, Mechanical Designers, Mechanical Engineers

### Prerequisites

Completion of "Inventor Introduction to Solid Modeling" Class

A minimum of 120 hours of work experience with the software is recommended.

Knowledge of Drafting, design, or mechanical engineering principles.

Proficient with Microsoft® Windows®

### Typical Schedule

This class starts at 9:00 am and ends at 4:00 pm, for the duration of the class.

### Topics Covered

- Assembly Tips
  - Assembly Folders
  - Save and Replace Component
- Constraint Tips
  - Assembling using a UCS & Constraint Sets
  - Place at Component Origin
  - Motion Constraints
  - Transitional Constraints
- Top-Down Design Process
- Bottom-Up Design Process
- Multi-Body Modeling
- Assembly Features
- Associative Links & Adaptive Parts
- Assembly Equations
- Component Generators
- Frame Generator
- Derived Components
- Nested Sketch Blocks
- Editing Sketch Blocks
- iMates
- Positional Representations
- Drawing Views using Positional Representations
- Level of Detail Representations & Shrinkwrap
- Design Accelerator
- Design Assistant
- Inventor Studio
  - Rendering Images
  - Animation
- iAssemblies
- iLogic
- Frame Generator
- Assembly Duplication Options
- Working with Weldments
  - Preparations
  - Welds
  - Machining Features