



## Autodesk Inventor Expert

### Training details

#### DESCRIPTION

This courseware the fundamental principles and recommended workflow for creating rigid tube, flexible hose and piping system. Performing dynamic simulation and stress analysis, teaching principle behind mold design and the techniques for creating plastic injection molds. Teaches how to create and manage sheet metal designs in Autodesk inventor. Delegates learn basic sheet metal concepts and techniques and then build in this knowledge covering complex modelling practices for forming sheet metal parts, assemblies and drawings

This course also covers the principles behind cable and harness design creating 3D electrical component cables and wire harness design.

#### OBJECTIVES:

The primary objective of this course is to provide students with a thorough understanding of the principal 3D design, validation, and documentation processes that they will use to develop products using Autodesk Inventor. Validate your digital prototype, eliminate redundancies in design and solve real word design problems.

#### TRAINING STRUCTURE:

Autodesk Inventor Expert

10 class x 2.5 hours = 25 hours

#### COURSE TEXTBOOKS AND OTHER READING MATERIALS

We recommend the following resources:

- Mastering Autodesk Inventor
- Autodesk Inventor Essentials

#### Web Resources:

- [Inventor Overview](#)
- [Inventor Help](#)
- [Autodesk Seek Library](#)

#### PREREQUISITES:

- Basic knowledge and skills about using computers.
- Inventor background is a must.

#### COURSE GRADING:

Attendance 40% Assignments (workshop + 2 projects) 60% To pass the course and receive both Autodesk certificate & CAD MASTERS certificate you should:

- Attend at least 80% of course hours.
- Score more than 70% as a total score.

## AUTODESK INVENTOR EXPERT – COURSE OUTLINE

This course including the following:

### Tubing and piping

- Setup up routing styles
- Creating routing segments
- Fittings and components

### Design Accelerator

- Placing Existing Components in an Assembly
- Designing using design accelerator

### Content center

- Overview of the content center
- Placing components into an assembly

### Stress Analysis

- Stress analysis
- Drawing Resources
- Constraining the parts.
- Performing analysis and reporting

### Dynamic Simulation

- Defining joints
- Motion analysis
- Link between dynamic simulation and stress analysis

### Weldment

- Defining weldment sequence
- Creating welding types
- Creating drawing for welded object

### Sheet Metal

- Setting up sheet metal styles
- Sheet metal operation
- Using flat pattern.

### Mold Design

- Create core and cavity
- Part fill analysis
- Create runners and channels
- Mold base creation

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### Frame Generator

- Setup up Frame generator 3d sketch
- Frame generator operation
- Frame analysis

### Cable and Harness

- Setup up routing styles
- Creating routing segments