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## Autodesk Inventor Essentials Part 2

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**Duration** : 2 days

### Course Overview

This courseware builds on the fundamental principles gained from Inventor Essentials part 1.

Delegates learn the basics of 3D sketching, and build upon 2D sketching knowledge. They will also learn new tools for creating more complicated shapes, cover parameters in more depth and assign appearances and materials to parts.

This courseware covers the fundamental principles and recommended workflows for “top down” design techniques as well as documenting assemblies. Delegates learn the proper techniques and recommended workflows for documenting assemblies using standard and exploded drawing views, how to customise assembly views, and how to create overlay views that represent multiple mechanism orientations.

### Target Audience

This course covers the essentials of 3D parametric design for new users of Autodesk Inventor®.

### Prerequisites

Ideally would have attended Autodesk Inventor Essentials Part 1 and have some design or engineering experience. It is recommended that you have a working knowledge of Microsoft supporting systems.

### Objectives

Upon successful completion of this course, delegates will be able to:

- To teach delegates the recommended workflows and basic skills needed to create 3D sketches and create 2D and 3D curves.
- Create more complex parts and shapes, and assign materials and appearances to parts.
- Make better use of parameters.
- To teach delegates “top down” design methods for creating assemblies.
- Create view representations and positional representations.
- Create part variations using iParts
- Create exploded drawing views, overlay views.
- Detailing drawings using automated dimensions, auto balloons, tables, and parameters



## Course Content – Part 2

### Appearance and Visual Styles Settings

Visual Styles

### Creating 2D Sketches & 3D Sketches

Properly Constraining Sketches  
Creating and Constraining Splines  
Projecting Geometry from Existing Part Edges  
Sharing Sketches  
Creating 3D Lines and Splines  
Creating 3D Sketches using Existing Edges

### Detailed Shape Design

Creating Thin-Walled Parts  
Strengthening Parts with Ribs and Webs  
Creating Basic Swept Shapes  
Creating Basic Blended Shapes

### Part Design

Sketch Driven Patterns  
Assigning Material  
Assigning Appearance

### Working with Parameters

Creating parameters  
Referencing parameters  
Importing/Linking Excel parameters

### Assembly Design

Mirror, Pattern and Copy components  
Bill of Material

### Layout Design

Creating a Layout Using Sketch Blocks  
Make Part  
Make Components

### Multi-Body Part Modelling

Creating Multiple Body Parts  
Naming Solid Bodies  
Turning a Multi-Body Part into an Assembly

### Representation Tools

View Representations  
Positional Representation

### iParts to Generate Part Variations

Creating iParts  
Editing iParts

### Creating Assembly Drawings

Standard & Exploded Views  
Customise Assembly Views  
Overlay Views  
Automated Dimensioning Techniques  
Creating Tables, Hole Tables, Revision Tables  
Customising Parts lists  
Auto ballooning  
Referencing parameters in text