

Essential in Fusion 360 (40 Hours)

S.No	Session	Topics	Type	Duration (Hours)
1	Session 1	Getting started	Theory/Demo	2.0hrs
		Course overview		
		Introduction to Fusion		
		Intro to Fusion 360 User Interface		
		Intro to Fusion 360 Collaboration		
		Files management in Fusion 360		
		Conceptual design		
		Sketcher		
		Create sketches using lines, circles, rectangles and arcs		
		Create sketches using splines and slots		
		Define sketch dimensions		
		Apply constraints to a sketch		
		Create advanced sketches using circular patterns		
Create advanced sketches using rectangular patterns				
Create advanced sketches using projections and intersections				
Create sketch projections onto a surface and sketches including 3D geometry				
2	Session 2	Exercises included for Practice	Practicals	2.0hrs
3	Session 3	3D component design	Theory/Demo	2.0hrs
		Feature modeling concepts		
		Changing units in Fusion 360		
		Creating Tools : Extrude, Revolve, Sweep, Loft, Rib, Web And Emboss		
4	Session 4	Exercises included for Practice	Practicals	2.0hrs
5	Session 5	Create construction planes	Theory/Demo	2.0hrs
		Modifying tools		
		Hole, Fillet, Chamfer, Draft, Shell and Thread		
6	Session 6	Exercises included for Practice	Practicals	2.0hrs
7	Session 7	Modifying tools	Theory/Demo	2.0hrs
		Move/ Copy, Pattern Feature and Mirror Feature		
		Inspect Tool : Measure and Section Analysis		
8	Session 8	Exercises included for Practice	Practicals	2.0hrs
9	Session 9	Assemblies	Theory/Demo	2.0hrs
		Assemblies – Introduction		
		Assemblies – Joint		
		As build joint		
		Rigid Group		
		Contact Set		
		Motion Link		
10	Session 10	Exercises included for Practice	Practicals	2.0hrs
11	Session 11	Product documentation	Theory/Demo	2.0hrs
		Introduction to drawing		
		Inserting new sheets, editing sheets		
		Creating drafting views : Base View, Projected View, Detail View, Section view and Break View		
		Modify tools : Move Rotate and Delete		
		Geometry Options : Centerline, Centermark, Centermark Pattern and Edge Extension		
		Adding Dimensions, Feature control Frame and Datum Identifier		
		Table Creation, Custom table, Bend Table, Baloons, Align Baloons and Renumber		
12	Session 12	Exercises included for Practice	Practicals	2.0hrs
13	Session 13	Free form modeling	Theory/Demo	2.0hrs
		Freeform modeling introduction		
		Freeform modeling tools : Create Box, Cylinder, Torus, Sphere and Insert Canvas		
		Modifying Tools : Edit Form, Subdivide, Insert Edge, Merge Edge, Crease and Uncrease		
		Symmetry Tools : Mirror Internal, Circular Internal, Clear Symmetry, Isolate Symmetry.		
14	Session 14	Exercises included for Practice	Practicals	2.0hrs
15	Session 15	Surface Design	Theory/Demo	2.0hrs
		Creating Tools : Extrude, Revolve, Sweep, Loft, Patch and Ruled		
		Modifying Tools : Trim, Untrim, Stitch, Unstitch and Extend		
16	Session 16	Exercises included for Practice	Practicals	2.0hrs

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17	Session 17	Design visualization	Theory/Demo	2.0hrs
		Design visualization introduction		
		Design Visualization tools : Appearance, Scene Settings, Decal and Texture map control		
		Incanvas Render, Incanvas Render setting, Capture Image and Render		
18	Session 18	Exercises included for Practice	Practicals	2.0hrs
19	Session 19	Sheet metal Design	Theory/Demo	2.0hrs
		About Sheet metal Rules		
		Flange, Extrude, Bend, Unfold and Refold		
		Convert to sheet metal and Create Flat Pattern		
20	Session 20	Exercises included for Practice	Practicals	2.0hrs