

Name: ID Ref: Batch Start Date:

Training Course: CERTIFICATE COURSE IN HVAC DRAFTING Course Duration: .. 2 MONTHS.

Date	Training Course Syllabus	Signature
UNIT – 1 : 2D drafting with AutoCAD.		
1.	<ul style="list-style-type: none"> ▪ Introduction to CAD, familiarization with CAD standards. ▪ Basic utilities tools – Open, Save, New, Units ▪ Drawing utilities function keys – Setting drawing Limits, Zoom, Pan, Setting Snap, Grid & Osnap. ▪ Co-ordinate system. 	
2.	<ul style="list-style-type: none"> ▪ Basic Draw tools – Point, Line, Arc, Circle, Rectangle, Polygon, Ellipse, Solid Donuts & Filled objects. ▪ Basic Editing tools – Method of selection, Erase, Move, Copy, Break, Offset, Array, Mirror, Scale, Rotate. 	
3.	Exercise on Basic command practice.	
4.	Exercise on Basic command practice.	
5.	Exercise on basic draw & editing tools.	
6.	<ul style="list-style-type: none"> ▪ Object Properties – Color, Linetype, Lineweight, Layers, Changing object properties, Matching properties. ▪ Adding Text information to drawings – Text, MText, Text style, Text edit, Find. 	
7.	Exercise on drawing with layer & Texts.	
8.	Advanced Draw & Editing tools – Hatch, Hatch edit, Pline, Pedit, Spline, Sedit, Multi line, Explode, Xline, Ray.	
9.	<ul style="list-style-type: none"> ▪ Advanced Modifying Tools – Trim, Extend, Stretch, Lengthen, Chamfer, Fillet, Editing with Grips. ▪ Enquiry commands – ID, List, Dist, Area 	
10.	<ul style="list-style-type: none"> ▪ Working with Dimensions – Adding Dimensions: Linear, Angular, Aligned, Radius, Diameter, Leader. ▪ Dimensions Editing, Dimension style. 	
11.	Exercise on drawing with dimensioning & advance editing tools.	
12.	<ul style="list-style-type: none"> ▪ Productivity Tools – Quick selection, Group filter, Block, Mblock, Insert, Minsert, Divide, Measure. ▪ Exercise on drawing with Block creating. 	
13.	Exercise on complete 2D drawing layout.	
14.	Exercise on complete 2D drawing layout.	
UNIT – 2 : 3D Modelling with AutoCAD.		
15.	3D solid modelling tools (Box, Wedge, Cone, Sphere, Cylinder, Torus, Pyramid, Polysolid, Extrude, Sweep, Revolve, Loft)	
16.	3D solid editing tools (Union, subtract, intersect, 3Dmove, 3Drotate, 3Dalign, Separate, Shell etc)	
17.	3D faces editing tools (Extrude face, Move face, Offset face, Delete face, Rotate face, Taper faces, Copy faces, Colour faces, Copy edges, Colour edges)	

UNIT – 3 : Drawing plotting techniques.		
18.	Basic Plotting Techniques, Create plot style, Creating layout sheets, Layout scaling.	
19.	Exercise on Drawing plotting in PDF.	
UNIT – 4 : HVAC Basic drafting.		
20.	<ul style="list-style-type: none"> ▪ Symbol & codes used in HVAC Drafting ▪ Types of ducting system used in HVAC ▪ Types of drawings used in industry. 	
21.	Drafting techniques to draw various duct fittings & accessories.	
22.	Duct sizing & basic duct layout preparation.	
23.	Exercise on Basic HVAC ducting layout	
UNIT – 5 : HVAC drafting for ducting system.		
24.	Study & preparation of floor drawings.	
25.	Conventional type Air conditioning system drawings (Window, split & Cassete type Air conditioning system)	
26.	Ductable & Packaged air conditioning system drawings.	
27.	Preparation of schematic, sectional & detailed drawings	
28.	Exercise on Packaged AC system layout.	
29.	Exercise on Packaged AC system layout with duct support & accessories.	
30.	Exercise on Sectional drawings.	
UNIT – 6 : HVAC drafting for Chilled water piping system.		
31.	Symbol & codes used in piping system. Types of piping system used in HVAC industry.	
32.	SLD & DLD layout with various pipe fittings & valves.	
33.	Chilled water schematic layout study & preparation.	
34.	Exercise on piping schematic diagram & piping layout.	
UNIT – 7 : HVAC drafting for central air conditioning system includes ducting & piping.		
35.	Study & preparation of central air conditioning system includes ducting & piping network.	
36.	Exercise on central AC system.	
37.	Exercise on central AC system.	
38.	Exercise on central AC system.	
39.	Exercise on central AC system.	
40.	Exercise on central AC system.	