# INDUSTRIAL TRADE CERTIFICATE
# in AutoCAD

## SYLLABUS AND COURSE DESCRIPTION

## Introduction

Autodesk AutoCAD course is one of the most demanding course among the students or professionals who are interested in digital architectural visualization. This AutoCAD course covers basics of architectural visualization with the concepts of digital imaging in architectural field.

## Course Highlight

- Course Title: **AutoCAD Course**
- Duration: **120 Hours /3 Months**
- Study Mode: **Online/Offline**
- Admission Period: **Full Year**

## Curriculum For This Course:

- Computer Graphics
- Draw Commands
- Editing Commands
- Drawing Aids
- Creating Text
- Basic Dimensioning
- Inquiry Commands
- Editing Dimensions
- Hatching
- Blocks
- Plotting Drawings in AutoCAD

- Draw isometric views of simple objects.
- 3D modeling
- Finishing Touches And Project

# Detailed Modules

**Module – I:**
**Computer Graphics :**

Application software :- Introduction of CAD
Starting AutoCAD – AutoCAD screen components – Starting a drawing: Open drawings, Create drawings (Start from scratch, Use a template & Use a wizard) – Invoking commands in AutoCAD – Drawing lines in AutoCAD – Co-ordinate systems: Absolute co-ordinate system, Relative co-ordinate system – Direct distance method – Saving a drawing: Save & Save As – Closing a drawing – Quitting AutoCAD.

Opening an existing file – Concept of Object – Object selection methods: Pick by box, Window selection, Crossing Selection, All, Fence, Last, Previous, Add, Remove – Erasing objects: OOPS command, UNDO / REDO commands – ZOOM command – PAN command, Panning in real time – Setting units – Object
snap, running object snap mode – Drawing circles

**Module – II:**
Draw Commands
ARC command – RECTANG command – ELLIPSE command, elliptical arc – POLYGON command (regular polygon) – PLINE command – DONUT command – POINT command – Construction Line: XLINE command, RAY command – MULTILINE command

**Module – III:**
Editing Commands
MOVE command – COPY command – OFFSET command – ROTATE command – SCALE command – STRETCH command – LENGTHEN command –TRIM command – EXTEND command – BREAK command – CHAMFER command – FILLET command – ARRAY command – MIRROR command – MEASURE command – DIVIDE command – EXPLODE command – MATCHPROP command – Editing with grips: PEDIT

**Module – IV:**
Drawing Aids
Layers – Layer Properties Manager dialog box – Object Properties: Object property toolbar, Properties Window – LTSCALE Factor – Auto Tracking – REDRAW command, REGEN command

**Module – V:**
Creating Text
Creating single line text – Drawing special characters – Creating multiline text – Editing text – Text style

**Module – VI:**
Basic Dimensioning

Fundamental dimensioning terms: Dimension lines, dimension text, arrowheads, extension lines, leaders, centre marks and centrelines, alternate units – Associative dimensions – Dimensioning methods – Drawing leader

**Module – VII:**

Inquiry Commands
AREA – DIST – ID – LIST – DBLIST – STATUS – DWGPROPS

**Module – VIII:**

Editing Dimensions
Editing dimensions by stretching – Editing dimensions by trimming & extending – Editing dimensions: DIMEDIT command – Editing dimension text: DIMTEDIT command – Updating dimensions – Editing dimensions using the properties window – Creating and restoring Dimension styles: DIMSTYLE

**Module – IX:**
Hatching
BHATCH, HATCH commands – Boundary Hatch Options: Quick tab, Advance tab – Hatching around Text, Traces, Attributes, Shapes and Solids – Editing Hatch Boundary – BOUNDARY command

**Module – X:**
Blocks
The concept of Blocks – Converting objects into a Block: BLOCK, _BLOCK commands – Nesting of Blocks – Inserting Blocks: INSERT, MINSERT commands – Creating drawing files: WBLOCK command
– Defining Block Attributes – Inserting Blocks with Attributes – Editing Attributes

**Module – XI:**

Plotting Drawings in AutoCAD
PLOT command – Plot Configuration – Pen Assignments – Paper Size & Orientation Area – Plot Rotation
& Origin – Plotting Area – Scale

**Module – XII:**
Draw isometric views of simple objects.

**Module – XIII:**
Introduction of 3D modeling, Wire frame and surface modeling.

**Finishing Touches And Project** Finishing Touches And Project. (Every Student Will Be Assigned To One Project Which They Have To Complete And Submit To Be Eligible For Certificate)